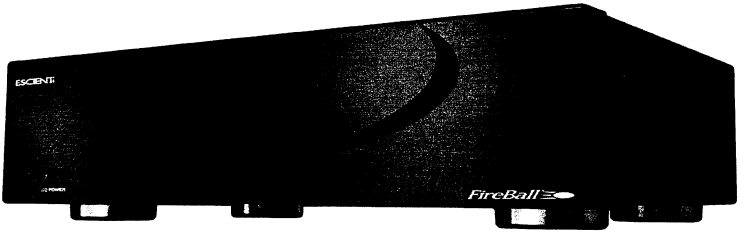
ESCIENT

FireBall™



SE-D1 DVD AND MUSIC MANAGER START UP GUIDE

gracenote cddb.

P/N: M32002-01A1

THANK YOU

The team at Escient would like to take this opportunity to thank you for purchasing an Escient FireBall product. Escient is committed to providing our customers the most technologically advanced, yet easier-than-ever to use products that converge the power of the Internet with home entertainment.

To maximize your enjoyment, please take a few minutes to review this Start Up Guide. It will guide you through all the features and benefits of your new FireBall.

If you should need assistance please call our Customer Support Staff at 800.372.4368

INTRODUCTION

This FireBall Manual is intended to provide the reader with an overview of the main features and benefits of the Escient FireBall Media Management System. For more detailed instruction and technical information, please refer to the Support section of the Escient web site (www.escient.com/support).

DISCLAIMER

At the time of printing, the FireBall screenshot images in this manual matched the FireBall interface screens. However, since FireBall has the capability of downloading software updates and enhancements on a regular basis, the resulting screen updates may no longer match the images in this manual.

This manual is copyright ©2005 by D&M Holdings and Escient. All rights reserved.

WARNINGS AND PRECAUTIONS

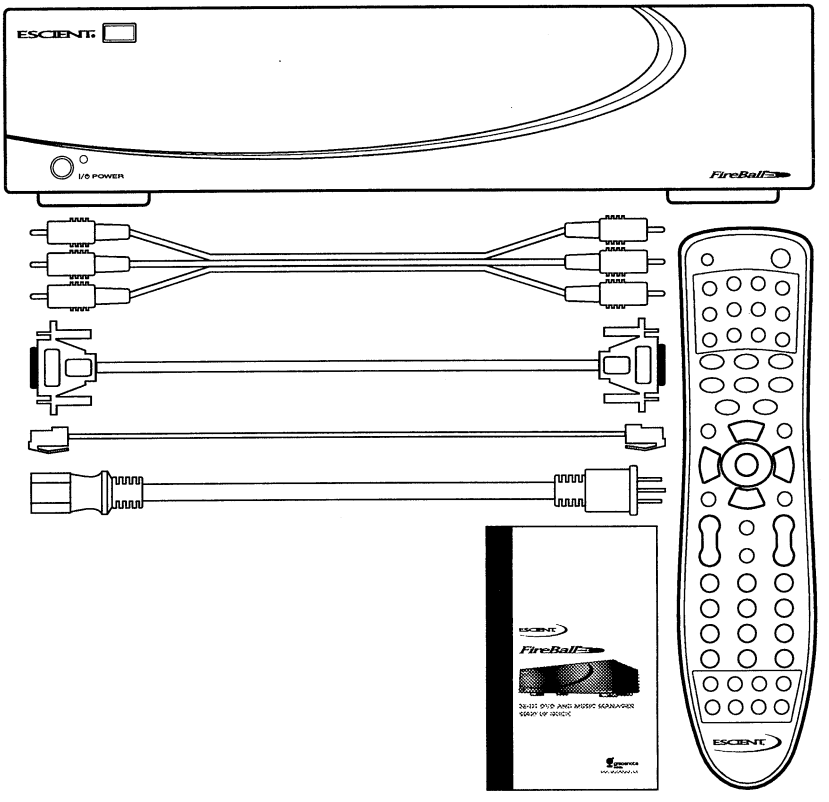
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- To reduce the risk of electric shock, do not remove the cover. No user serviceable parts are inside. Refer servicing to qualified service personnel.
- To prevent electric shock, do not use a 3 wire to 2 wire adapter plug.
- A three prong grounded outlet is required.
- You are cautioned that any change or modification not expressly approved in this manual or approved in writing by an authorized representative of Escient could void your warranty and/or your authority to operate this equipment.
- Prolonged use of any video device which produces a static (non-moving, non-changing) or repetitive image on your projector, television or plasma display device can cause "screen burn-in". You are encouraged to leave the FireBall screen-saver turned on and set to the lowest possible "time-out" duration. Warning: This device uses the mains plug as the means to disconnect the unit, this unit remains powered unless disconnected from the mains source.

INSTALLATION

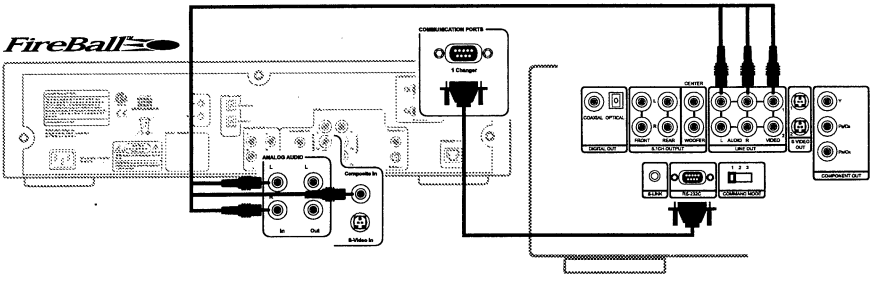
1)Unpack the FireBall, cables, and accessories. Install the included batteries into the remote. Write down the FireBall serial number (located on the back) here:

SERIAL NUMBER: _____

CONTENTS
FireBall
IR Remote Control (batteries included)
Analog Audio/Composite Video Cable (red, white, and yellow)
RS-232 Serial Control Cable
Ethernet Cable
Power Cable
Start Up Guide



2)Follow these steps to connect your Sony CD/DVD changers to your FireBall:



1. **Connect one end of the included RS-232 serial cable into Communication Port labeled "Changer", on the back of your FireBall.**
2. **Connect the other end of the RS-232 serial cable into the "RS-232C" port on the back of your Sony changer.**
3. **Locate the Analog Audio (red/white) / Composite Video (yellow) cable that came with your changer.**
4. **Connect one end of the Analog Audio (red/white) cable into the Analog Audio (red/white) In jacks on the back of your FireBall**
5. **Connect the other end of the Analog Audio (red/white) cable into the Analog Line Out jacks on the back of your changer.**
6. **Connect one end of the Composite Video (yellow) into the Composite Video (yellow) In jacks on the back of your FireBall**
7. **Connect the other end of the Composite Video (yellow) cable into the Video Line Out jacks on the back of your changer.**

- For the best audio quality, you should also connect digital optical or coax audio cables (not included) between your changers and FireBall.
- For the best video quality, you should also connnect component video cables (not included) between your changers and FireBall.

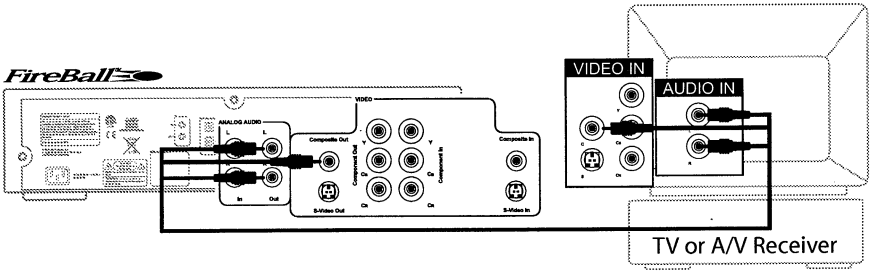
Note: The RS-232 serial control cable between the FireBall and the changer must be 25 feet or less in length.

3)Connect FireBall to your A/V Receiver and TV

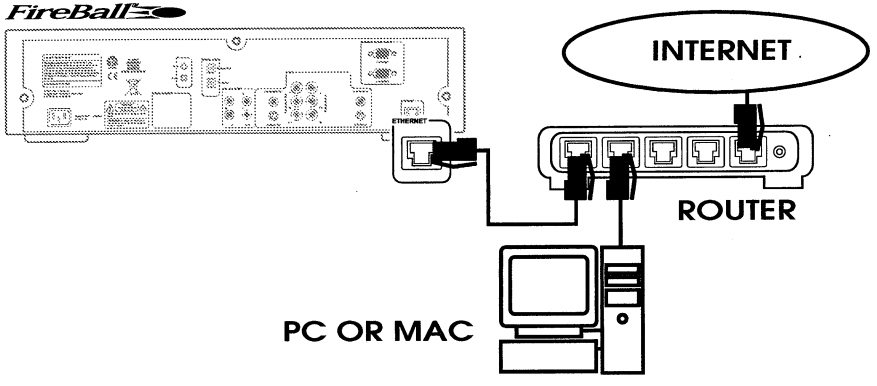
A)Locate the included Analog Audio/Composite Video Cable.

B)Connect FireBall to any available A/V input on your receiver or TV

Note: You may use optional s-video or component video cables and optional digital audio cables for the best picture and sound quality. Contact your Escient dealer for more information

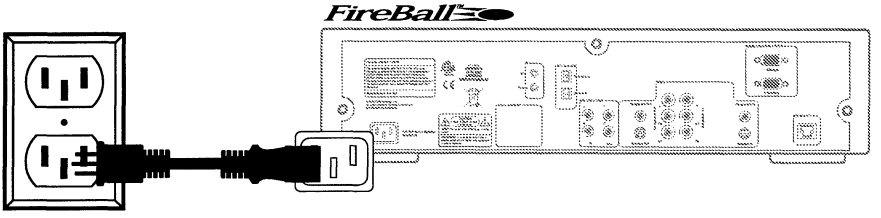


4)Connect FireBall to your network using the included Ethernet cable.



5)Connect FireBall to an AC outlet using the included power cord.

Note: The power LED on the front of the FireBall will begin to flash. The power LED will turn solid RED once the FireBall has completed its initialization process indicating the unit is in standby.



6)Press the POWER button on the front panel or on the remote control. The LED will turn solid BLUE and video will be displayed on the TV when the unit is on. Follow the instructions on the screen to complete the setup procedure.

REMOTE CONTROL

CODE SET
Code Set - used to set the universal IR source buttons. See manual for details.

UNIVERSAL SOURCE SELECT
TV / Cable / Receiver / DVD - used to configure the remote to control other devices. See manual for details on the universal remote functions.

MODE GUIDE SELECT
Movies / iRadio / Music - used to select FireBall modes.

TRANSPORT CONTROLS
Rewind / Play / Forward / Record / Stop / Pause - used to control playback of movies and music. Also used for text entry and for canceling certain operations.

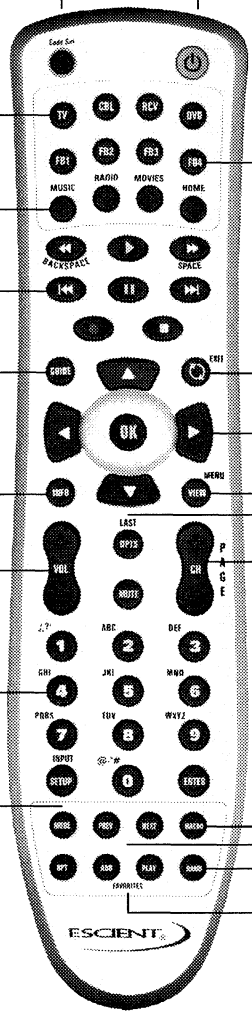
GUIDE
Guide / Player - toggles between Guide and Player screens.

INFO
Info - displays additional movie and music info

VOLUME CONTROL
Volume Up / Volume Down / Mute - Universal remote can be configured to operate volume on TVs and receivers. See manual for detailed setup steps.

KEY PAD
Alpha / Numeric / Enter - used for entering numbers and text. Also used for searching in the movies, music and radio guides.

CONTROL
Mode - changes music play modes: normal, random, repeat etc.
Setup - displays Setup menu.



POWER
Power - used to toggle the current source device on and off.

FIREBALL SELECT
FireBall 1 / FireBall 2 / FireBall 3 / FireBall 4 - use FB1 to control the FireBall. Use other FB buttons if additional FireBall products are installed.

ALL / NONE
Toggle ALL or NONE on Select Guides.

NAVIGATION & SELECT
Up / Down / Left / Right / Select - used to navigate and select on-screen menus and buttons.

VIEW / MENU
View / Menu - toggles through various Guide Views (artist, title, cover).

CONTROL
Options - displays Options menu.

CHANNEL / PAGE CONTROL
Channel/Page Up/Down - used to page up and down in Guide and Player screens.

MACRO FUNCTION
Macro Function - used to directly access various music, movie and radio items and controls.

DISC PLAY FUNCTIONS
Previous / Next - skip disc functions.

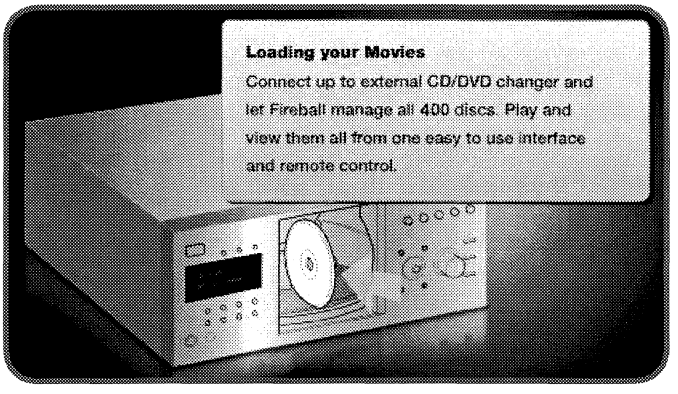
MUSIC PLAY FUNCTIONS
Repeat / Random - used to cause the system to play the current group/genre in repeat or random playback mode.

MUSIC FAVORITES
Add-Favorites / Play-Favorites - used to add the currently highlighted music track to the Favorites playlist and to play the favorites playlist.

LOADING DVD MOVIE DISCS INTO CHANGERS

Insert DVDs into your changers, following the changer manufacturer's instructions and close the changer door. Quick Lookup will automatically start in a few seconds. If the Quick Lookup process does not automatically start, then manually start the Lookup using the steps described below.

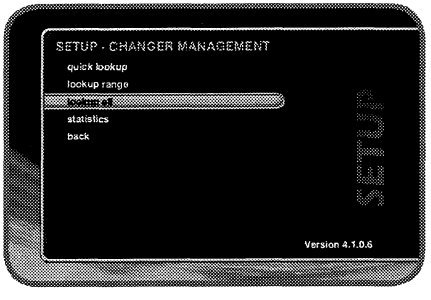
The disc information that FireBall displays on your TV screen is NOT included on the original DVDs or CDs that you load into your changer. The artist name, album name, and track list are provided by the Gracenote® Music Recognition Service. The album cover, movie title, movie info, and movie cover art are provided by the Escient service. This information is downloaded from the Escients servers to your FireBall using your Internet connection. This process is referred to as "Looking up Disc Information".

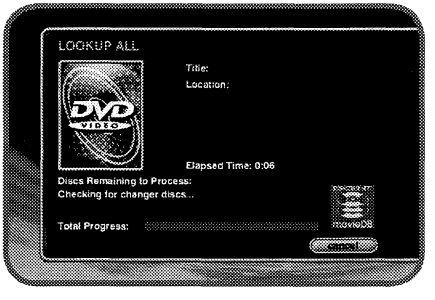

Loading your Movies
Connect up to external CD/DVD changer and let Fireball manage all 400 discs. Play and view them all from one easy to use interface and remote control.

Getting Disc Information for All Discs

Follow these steps to lookup all discs in the changer:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the Changer Management menu.**
3. **Select the Lookup All menu.**
4. **The Lookup All screen displays the progress and results as each disc in each changer is looked up.**

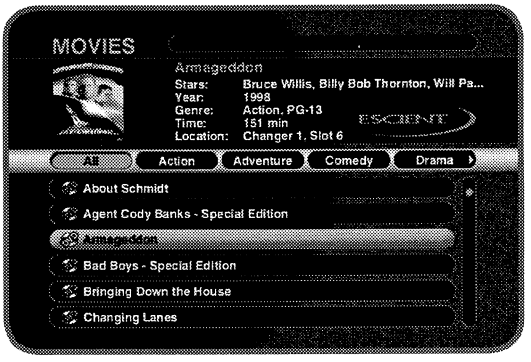




MOVIE MANAGEMENT

Browsing your Movie Library

Now that you have your DVD movies loaded into your changers and the movie information has been acquired from the Escient MovieDB using the Quick Lookup feature, it's time to see what's in your collection using the Movies Guide.



The Movies Guide displays a scrolling list of all your Movies. Using the remote control, you can navigate up and down the list. As each Title is highlighted, you will notice that the Information Area and Cover Art changes to reflect the currently highlighted movie title.

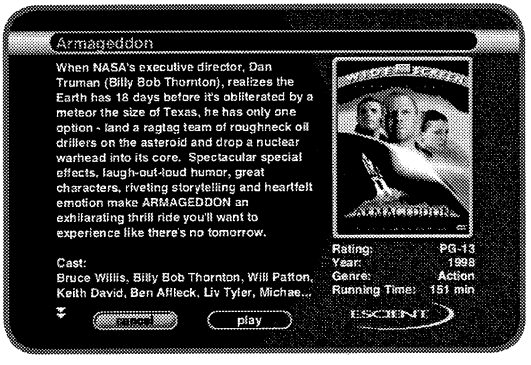
Playing the Current Movie

Playing the currently highlighted Movie is the same as playing a DVD in a standalone DVD player. Simply press the PLAY key on the remote control and the changer will load the movie and begin to play it.

Once you select the movie to play, the TV screen will change to display the selected movie and hide the FireBall user interface.

Selecting a Different Movie

While a movie is playing, you can press the GUIDE key on the remote control to display the Movies Guide. The current movie is paused when you switch over to the Guide. Press the GUIDE key again to toggle back to the full screen movie and pickup where you left off.


Armageddon
When NASA's executive director, Dan Truman (Billy Bob Thornton), realizes the Earth has 18 days before it's obliterated by a meteor the size of Texas, he has only one option - land a ragtag team of roughneck oil drillers on the asteroid and drop a nuclear warhead into its core. Spectacular special effects, laugh-out-loud humor, great characters, riveting storytelling and heartfelt emotion make ARMAGEDDON an exhilarating thrill ride you'll want to experience like there's no tomorrow.
Cast:
Bruce Willis, Billy Bob Thornton, Will Patton, Keith David, Ben Affleck, Liv Tyler, Michae...
Rating: PG-13
Year: 1998
Genre: Action
Running Time: 151 min
play
ESCIENT

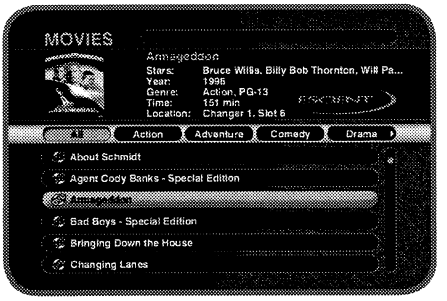
Movie Info

View detailed infromation for the currently highlighted movie by pressing the Info button on the remote.

Changing the Guide View

The Movies Guide provides you with two different ways to view the contents of your DVD Movie Library. There are two Views that you can switch between using the MENU/VIEW key on the remote control:

- View By Title
- View By Cover



View By Title

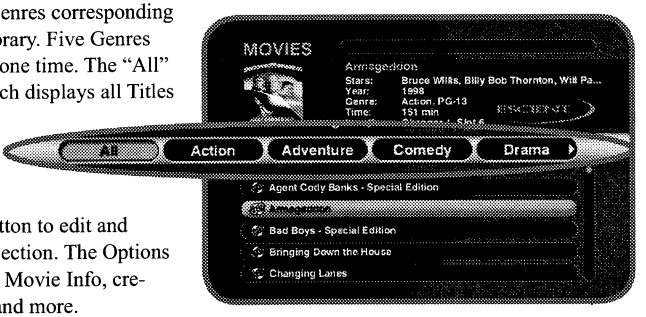
View By Title will order the list of DVD Titles alphabetically from A to Z, according to the Movie Title.

View By Cover

View By Cover displays a graphical 4x2 grid of DVD cover art, sorted alphabetically from A to Z, according to the Movie Title.

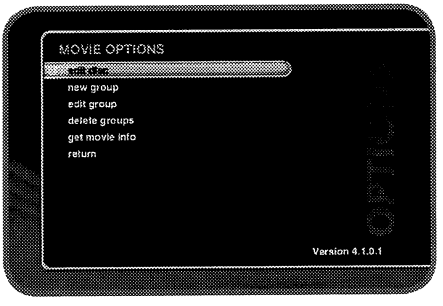
Viewing by Genre

In addition to the current Guide View, the Movies Guide automatically organizes your DVDs into default "Genres" also called "Groups". The Group Bar displays a horizontal scrolling list of Genres corresponding to the movies in your library. Five Genres or Groups are visible at one time. The "All" genre is the default, which displays all Titles in your Movie Library.
remote.



Movie Options

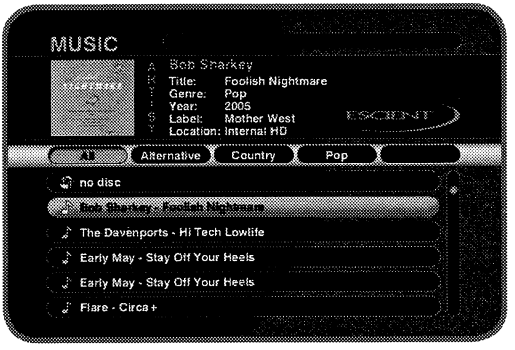
Press the **OPTIONS** button to edit and manage your movie collection. The Options menu allows you to edit Movie Info, create/edit/delete Groups, and more.



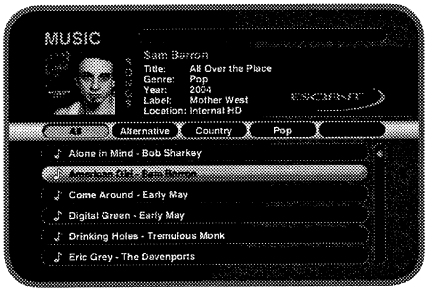
MUSIC MANAGEMENT

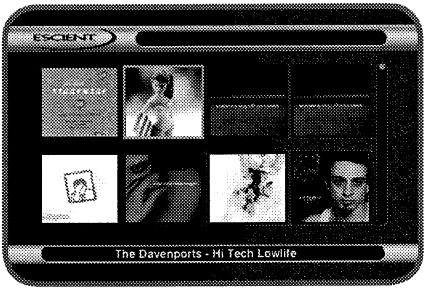
Browsing the Music Library

Use the Music Guide to browse your Music Library. Press the **LEFT** or **RIGHT** arrow buttons on the remote control to change Genres or view All of your Music in one list. Press **UP** or **DOWN** buttons to highlight any Album or Song in the list. Use the **PAGE UP** or **DOWN** buttons to advance through all your music. Press **SELECT** to expand the highlighted Album or press **PLAY** to play the Album or Song.



Like the Movies guide, you can use the **VIEW** button to view the Music Library alphabetically by Album Title, Artist Name, Song Name, or Album Cover Art.



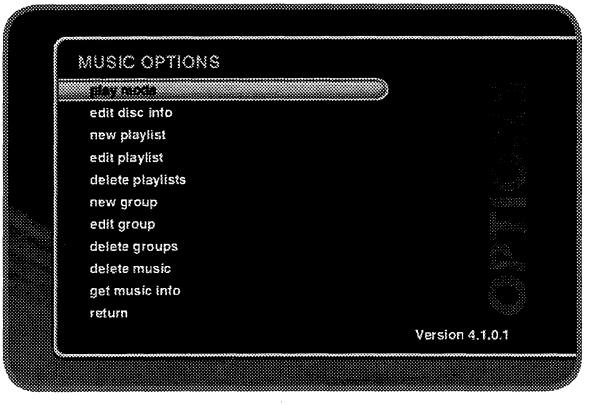


Playing Music

The currently playing Album, Artist, Song, and Cover Art appear in the Music Player screen. Use the Up and Down buttons to highlight a different song. Press **SELECT** to play the highlighted song. Press the **GUIDE** button to return to the Music Guide.

Music Options

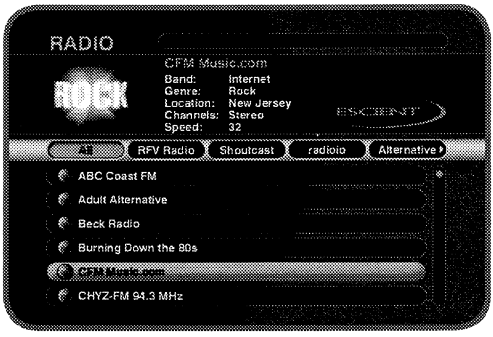
Press the **OPTIONS** button to edit and manage your music collection. The Options menu allows you to create, edit, and delete Groups, Playlists, and Music files. You can also change the current play mode and change other options for the music source.



INTERNET RADIO

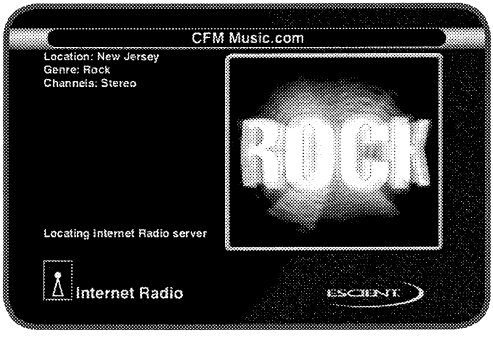
Browsing Internet Radio Stations

Use the Radio Guide to browse your Internet Radio Stations. Press the **RADIO** button to access the Internet Radio Guide (press the **MUSIC** button to return to the Music Guide). Press the **LEFT** or **RIGHT** arrow buttons on the remote control to change Genres or view All of your Stations in one list. Press the **UP** or **DOWN** buttons to highlight any station in the list. Press **PLAY** to connect to and start playing the station.



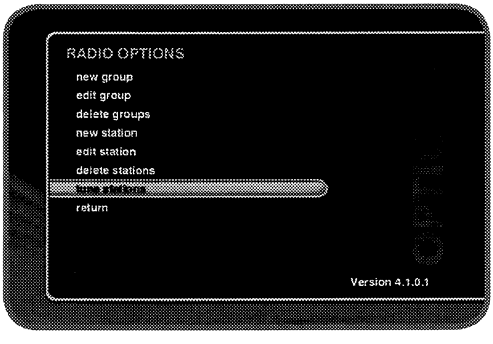
Playing an Internet Radio Station

The currently playing Radio Station appears in the Radio Player screen. Press the **GUIDE** button to return to the Radio Guide.



Radio Options

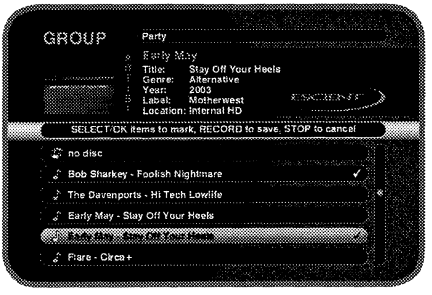
Press the **OPTIONS** button to edit and manage your Internet Radio stations. The Options menu allows you to create, edit, and delete Groups and Radio stations.



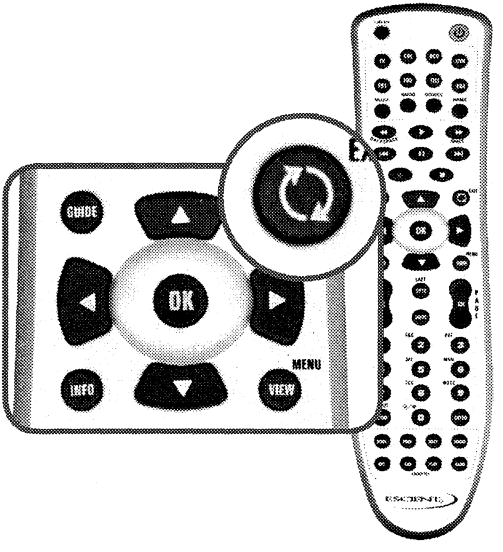
SELECT GUIDES

Select Guides are the special Guide screens used when creating and editing custom movie Groups, music Groups, or Playlists. They are used to browse library content just like the regular Guide screens, however, instead of playing the selected item, the item is marked to indicate that it is "selected".

All selected items in the current Select Guide are added to the current movie Group, music Group, or Playlist. Selection when you press the **RECORD** button to save the Selection.

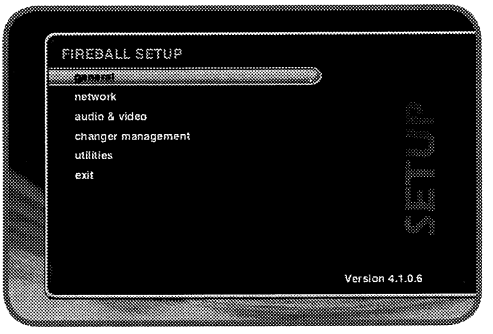


The **TOGGLE** button on the remote is used to toggle all items in the current list On or Off at once. This saves the trouble of selecting each individual track.



SETTING USER PREFERENCES

User preferences are available to specify global configuration options and preferred system settings. Press the **SETUP** key on the remote control to display the Setup Menu. Use the navigation keys on the remote control (up, down, left, and right) to highlight and select any menu item to display a Setup screen. Additional information is available on each Setup screen by selecting the HELP button.



TRADEMARKS AND SERVICE MARKS

- Escient, the Escient logo, and FireBall are trademarks of D&M Holdings.
- FireBall and Physital are trademarks of Escient®.
- Other product names mentioned herein are used for identification purposes only and may be trademarks of their respective companies.

GRACENOTE CDDB

- Music recognition technology and related data are provided by Gracenote®. Gracenote is the industry standard in music recognition technology and related content delivery. For more information visit www.gracenote.com.
- CD and music-related data from Gracenote, Inc., copyright © 2000-2005 Gracenote.
- Gracenote CDDB® Client Software, copyright 2000-2005 Gracenote. This product and service may practice one or more of the following U.S. Patents: #5,987,525; #6,061,680; #6,154,773, #6,161,132, #6,230,192, #6,230,207, #6,240,459, #6,330,593, and other patents issued or pending. Services supplied and/or device manufactured under license for following Open Globe, Inc. United States Patent #6,304,523.
- Gracenote and CDDB are registered trademarks of Gracenote. The Gracenote logo and logotype, and the "Powered by Gracenote" logo are trademarks of Gracenote.

gracenote
cddb.

WARRANTY INFORMATION

Terms of Coverage

Each Escient branded media management system sold comes with a standard one (1) year warranty. This warranty provides no-charge coverage under normal product usage, for a period of one year from the date of registration and/or purchase (whichever is earlier). This warranty program provides the following key features and benefits:

- Twelve (12) months service, parts and labor.
- Five (5) day turn around time on all standard in-warranty repairs. No charges to the customer other than in-bound shipping charges which are determined by the shipping method. All return shipments will be via Standard Ground Transportation (approximately 5 business days).
- Twelve (12) months of regular hour telephone support (9AM to 7PM EST), Monday through Friday.
- 24-hour email response from the Escient Support Website.
- Software maintenance updates provided via a broadband Internet connections.
- Access to 24-hour music and movie databases and entertainment services providing access to thousands of CD titles and associated information.

What is Covered

The goal of this warranty is to cover operational problems that might arise with your product during normal use. This includes failure to start, improper operation, or intermittent failures. As part of the warranty, Escient will pay for all labor and materials used in the repair of the system. Escient reserves the right to use new or factory refurbished parts in the repair of these in-warranty systems. Escient will also pay for the return shipment of the repaired system via standard ground transportation. At Escient's discretion, the Company will repair or replace any system sent in for repair. Upon repair, the product will be new or like-new in condition and will meet all necessary regulatory requirements.

What is Not Covered

Escient products are sold through Escient approved dealers. A number of items must remain intact in order for Escient to verify and validate this warranty. Additionally, there are several conditions which violate Escient's warranty program. These include:

- The product was not purchased through an approved Escient Dealer.
- Any product, on which the serial numbers has been defaced, modified or removed physically or electronically will not be covered by an Escient warranty.
- Escient will not cover under warranty damage to the product as a result of accident, misuse, abuse, neglect, fire, water, lightning, or other acts of God or nature, improper storage, unauthorized modification, or failure to follow instructions.
- Any type of unauthorized repair or modifications made to the system resulting in damage to the product will not be covered under this warranty.
- Damage caused to the product as a result of improper shipping or installation.
- Any problems related to the use of the product which is not a direct problem with the product.
- Damage caused to the product as a result of improper installation to third party peripherals or products, or incorrect connection to peripheral or products.

- Additionally, Escient does not cover the following items under the terms or its warranty programs:
  - Installation or removal charges.
  - Cost of initial technical adjustments (setup costs).
  - Battery replacement

Escient's sole liability for any defective product is limited to the repair or replacement of the product at our discretion. Escient shall not be liable for damages to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time or data, commercial loss or any other damages, whether real; incidental or consequential.

Escient shall not be liable for damage or loss of data including but not limited to music recorded to storage devices. It is the customer's responsibility to maintain the original media and/or appropriate backup copies within the specific rights of the media's copyright holder.

How to Return a Product

Contact your dealer or Escient's Customer Support group at 317-616-6789 or 800-372-4368 (U.S. only). Please have the following information ready for your dealer or Escient's Customer Support technician:

- Product Serial Number
- Model Number
- Date of Registration or Purchase
- Place of Purchase

Upon reviewing the request for repair under warranty provisions, Escient's Technical Support group will issue a Return Material Authorization (RMA) number. This number is to be attached to the outside of the shipping carton. Additional instructions will be provided by technical support. Please be sure to use original packing carton and internal packing materials to assure proper shipment of the system. Insurance costs are the responsibility of the customer. Most shippers only provide standard coverage for $100 in cost so please protect yourself by providing additional insurance for the returned product.

Out of Warranty Repair

Escient provides out of warranty repair service on a cost plus labor basis. Minimum charges will apply. Technical support will provide information on this service at the time of the call.

ESCIENT

FireBall™

SE-D1 USER'S MANUAL

PHYSITAL™ ENTERTAINMENT PRODUCT

ESCIENT movieDB

gracenote cddb®

P/N: M32002-02A1

THANK YOU

The team at Escient would like to take this opportunity to thank you for purchasing an Escient FireBall product. Escient is committed to providing our customers the most technologically advanced, yet easier-than-ever to use products that converge the power of the Internet with home entertainment.

To maximize your enjoyment, please take a few minutes to review this User's Manual. It will guide you through all the features and benefits of your new FireBall.

If you should need assistance please call our Customer Support Staff at 800.372.4368

The Escient Team

PRODUCT INTRODUCTION 5
ABOUT THIS MANUAL 5
RECORD YOUR SERIAL NUMBER 5
MANUAL DISCLAIMERS 5
WARNINGS AND PRECAUTIONS 6
TRADEMARKS & SERVICE MARKS 7
WARRANTY INFORMATION 8
ESCIENT PRIVACY POLICY 10
CONTACT INFORMATION 10
COPYRIGHT 10
TERMS AND DEFINITIONS 11

SETUP 12
POWER STATES 12
FRONT PANEL OVERVIEW 13
REMOTE OVERVIEW 14
ENTERING TEXT WITH THE REMOTE CONTROL 15
Entering Numeric Entry Mode 15
Typing Characters with the Remote 15

CONNECTING EXTERNAL DISC CHANGER 17
Connecting a Sony DVP-CX777ES CD/DVD Changer 17
LOADING DVD MOVIE DISCS INTO CHANGERS 18
Automatically Getting Disc Information 19
Getting Disc Information for a Range of Discs 20
Getting Disc Information for All Discs 21

ADDITIONAL CONNECTION AND HOOKUP INFORMATION 22
AUDIO OUTPUTS 22
VIDEO OUTPUTS 23
RS-232 CONNECTIONS 24

ESCIENT®

FireBall™ SE-D1 User's Manual

IR CONNECTIONS 24
ETHERNET CONNECTIONS 24

REGISTRATION 26
TESTING A BROADBAND CONNECTION 26

WATCHING DVD MOVIES 27
BROWSING YOUR MOVIE LIBRARY 27
PLAYING THE CURRENT MOVIE 27
SELECTING A DIFFERENT MOVIE 28
Movie Info 28
CHANGING THE GUIDE VIEW 28
View By Title 28
View By Cover 28
VIEWING BY GENRE 29

LISTENING TO MUSIC 30
BROWSING YOUR MUSIC LIBRARY 30
SHOW AND HIDE TRACKS 30
PLAYING THE CURRENT TITLE 31
SELECTING A DIFFERENT SONG 31
CHANGING THE GUIDE VIEW 32
View By Artist 32
View By Title 32
View By Song 32
View By Cover 32
CHANGING THE CURRENT PLAY MODE 33
VIEWING BY GENRE 34

LISTENING TO INTERNET RADIO 35
BROWSING INTERNET RADIO STATIONS 35
PLAYING THE CURRENT STATION 36

MANAGING YOUR MEDIA 37
CREATING PLAYLISTS 37
CREATING GROUPS 38
ADDING INTERNET RADIO STATIONS 39
UPDATING THE INTERNET RADIO STATIONS LIST 40
EDITING MOVIE INFORMATION 41
Editing Disc Info 41
Automatically Lookup Information for This Disc 42
Searching for Movie Information Manually 43
Tips for Searching for Movies 43
Selecting an Existing Cover 44
Edit Description 45
EDITING MUSIC INFORMATION 46
Editing Track Names 47
Automatically Lookup Information for This Disc 48
Searching for the Original Cover 49
Tips for Searching for Covers 49
Selecting an Existing Cover 50
EDITING RADIO INFORMATION 51
EDITING PLAYLISTS 52
EDITING GROUPS 53
DELETING MUSIC 54
DELETING PLAYLISTS 55
DELETING GROUPS 56

SETTING USER PREFERENCES 57
SETTING THE SCREEN SAVER PREFERENCES 57
Activation Idle Time 57
Other Modes 57
Retail Demo Mode 58
SETTING YOUR TIME ZONE 59
CUSTOMIZABLE USER INTERFACE 60
ENABLING PASSWORD PROTECTION 61

ESCIENT®

FireBall™ SE-D1 User's Manual

MOVIE RATINGS 62
NETWORK ETHERNET SETTINGS 63
Testing the Your Connection 64
SETTING THE FIREBALL SERVER SETTINGS 65
VIDEO OUTPUT PREFERENCES 66
Video Format 66
Centering the FireBall Screen 67
Adjusting your TV's Brightness 68
Adjusting your TV's Contrast 69
Adjusting your TV's Sharpness 70
Adjusting your TV's Color and Tint 71

EXTERNAL CONTROL 72
SURROUND MODE SETTINGS 72
IR REMOTE CONTROL 73
DIRECT ACCESS CODES 74
PLAYLIST HOT KEYS 77
BUTTON OVERLAY 78

FIREBALL UTILITIES 79
GETTING INFORMATION ABOUT YOUR FIREBALL 79
RESTARTING THE SYSTEM 80
UPDATING THE SOFTWARE 81

CONTROLLING FIREBALL FROM A WEB BROWSER 82
SETTING UP THE FIREBALL WEB SERVER 82
USING THE WEB USER INTERFACE 82

NETWORKED AUDIO USING FIREBALL MUSIC CLIENTS 83
SERVERS 83
CLIENTS 83
LOCATING THE FIREBALL CLIENTS AND SERVERS 84
Central 84
Distributed 85
CONFIGURING A FIREBALL SERVER 86
CONFIGURING A FIREBALL CLIENT 86
Networking 86
Server Selection 86

ESCIENT TECHNICAL SUPPORT 87

TROUBLESHOOTING 88
NETWORK PROBLEMS 88
SOFTWARE UPDATE PROBLEMS 88
RECORDING PROBLEMS 88

ADDITIONAL INFORMATION 89
SPECIFICATIONS 89
Video Specifications 89
Audio Specifications 89
Physical Specifications 89
3rd Party Certifcations 89
FCC Part 15, Subpart B 89

GRACENOTE® END-USER LICENSE AGREEMENT 90

ESCIENT®

FireBall™ SE-D1 User's Manual

PRODUCT INTRODUCTION

Thank you for purchasing a FireBall Media Management system from Escient (a division of D&M Holdings).

ABOUT THIS MANUAL

This FireBall User's Manual is intended to provide the reader with an overview of the main features and benefits of the Escient FireBall Media Management Systems. For more information, please refer to the Escient web site (**www.escient.com**) or contact your Escient dealer.

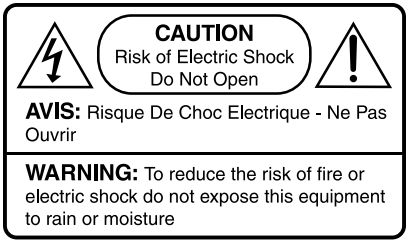
RECORD YOUR SERIAL NUMBER

The serial number for this unit is located at the rear of the device. Please record the serial number in the space provided below. Refer to it whenever you call Escient Tech Support (800.372.4368) regarding this product.

FireBall Serial Number: _____

MANUAL DISCLAIMERS

At the time of printing, the screen shot images in this manual matched the interface screens. However, since FireBall has the capability of downloading software updates and enhancements on a regular basis, the resulting screen updates may no longer match the images in this manual. Please check the Escient website for more information about software updates.


CAUTION
Risk of Electric Shock
Do Not Open
AVIS: Risque De Choc Electrique - Ne Pas Ouvrir
WARNING: To reduce the risk of fire or electric shock do not expose this equipment to rain or moisture

WARNINGS AND PRECAUTIONS

- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- To reduce the risk of electric shock, do not remove the cover. No user serviceable parts are inside. Refer servicing to qualified service personnel.
- To prevent electric shock, do not use a 3 wire to 2 wire adapter plug.
- A three prong grounded outlet is required.
- You are cautioned that any change or modification not expressly approved in this manual or approved in writing by an authorized representative of Escient could void your warranty and/or your authority to operate this equipment.
- Prolonged use of any video device which produces a static (non-moving, non-changing) or repetitive image on your projector, television or plasma display device can cause “screen burn-in”. You are encouraged to leave the FireBall screen-saver turned on and set to the lowest possible “time-out” duration. Warning: This device uses the mains plug as the means to disconnect the unit, this unit remains powered unless disconnected from the mains source.

TRADEMARKS & SERVICE MARKS

Escient®, the Escient logo, and **FireBall®** are trademarks of Digital Networks North America.

FireBall and **Physital** are trademarks of Escient®.

Other product names mentioned herein are used for identification purposes only and may be trademarks of their respective companies.

Music recognition technology and related data are provided by Gracenote®. Gracenote is the industry standard in music recognition technology and related content delivery. For more information visit **www.gracenote.com**.

CD and music-related data from Gracenote, Inc., copyright © 2000-2005 Gracenote.

Gracenote CDDB® Client Software, copyright 2000-2005 Gracenote. This product and service may practice one or more of the following U.S. Patents: #5,987,525; #6,061,680; #6,154,773, #6,161,132, #6,230,192, #6,230,207, #6,240,459, #6,330,593, and other patents issued or pending.

Gracenote and CDDB are registered trademarks of Gracenote. The Gracenote logo and logotype, and the “Powered by Gracenote” logo are trademarks of Gracenote.

WARRANTY INFORMATION

Terms of Coverage - Each Escient branded media management system sold comes with a standard one (1) year warranty. This warranty provides no-charge coverage under normal product usage, for a period of one year from the date of registration and/or purchase (whichever is earlier). This warranty program provides the following key features and benefits:

- Twelve (12) months service, parts and labor.
- Five (5) day turn around time on all standard in-warranty repairs. No charges to the customer other than in-bound shipping charges which are determined by the shipping method. All return shipments will be via Standard Ground Transportation (approximately 5 business days).
- Twelve (12) months of regular hour telephone support (9AM to 7PM EST), Monday through Friday.
- 24-hour email response from the Escient Support Website.
- Software maintenance updates provided via a broadband or dial-up Internet connections.
- Access to 24-hour music and movie databases and entertainment services providing access to thousands of CD and DVD titles and associated information.

What is Covered - The goal of this warranty is to cover operational problems that might arise with your product during normal use. This includes failure to start, improper operation, or intermittent failures. As part of the warranty, Escient will pay for all labor and materials used in the repair of the system. Escient reserves the right to use new or factory refurbished parts in the repair of these in-warranty systems. Escient will also pay for the return shipment of the repaired system via standard ground transportation. At Escient's discretion, the Company will repair or replace any system sent in for repair. Upon repair, the product will be new or like-new in condition and will meet all necessary regulatory requirements.

What is Not Covered - Escient products are sold through Escient approved dealers. A number of items must remain intact in order for Escient to verify and validate this warranty. Additionally, there are several conditions which violate Escient's warranty program. These include:

- The product was not purchased through an approved Escient Dealer.
- Any product, on which the serial numbers has been defaced, modified or removed physically or electronically will not be covered by an Escient warranty.
- Escient will not cover under warranty damage to the product as a result of accident, misuse, abuse, neglect, fire, water, lightning, or other acts of God or nature, improper storage, unauthorized modification, or failure to follow instructions.
- Any type of unauthorized repair or modifications made to the system resulting in damage to the product will not be covered under this warranty.
- Damage caused to the product as a result of improper shipping or installation.
- Any problems related to the use of the product which is not a direct problem with the product.
- Damage caused to the product as a result of improper installation to third party peripherals or products, or incorrect connection to peripheral or products.

- Additionally, Escient does not cover the following items under the terms or its warranty programs:
- Installation or removal charges.
- Cost of initial technical adjustments (setup costs).
- Battery replacement.

Escient's sole liability for any defective product is limited to the repair or replacement of the product at our discretion. Escient shall not be liable for damages to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time or data, commercial loss or any other damages, whether real, incidental or consequential.

Escient shall not be liable for damage or loss of data including but not limited to music recorded to storage devices. It is the customer's responsibility to maintain the original media and/or appropriate backup copies within the specific rights of the media's copyright holder.

How to Return a Product - Contact your dealer or Escient's Customer Support group at 800-372-4368.

Please have the following information ready for your dealer or Escient's Customer Support technician:
- Product Serial Number
- Model Number
- Date of Registration or Purchase
- Place of Purchase

Upon reviewing the request for repair under warranty provisions, Escient's Technical Support group will issue a Return Material Authorization (RMA) number. This number is to be attached to the outside of the shipping carton. Additional instructions will be provided by technical support. Please be sure to use original packing carton and internal packing materials to assure proper shipment of the system. Insurance costs are the responsibility of the customer. Most shippers only provide standard coverage for $100 in cost so please protect yourself by providing additional insurance for the returned product.

Out of Warranty Repair - Escient provides out of warranty repair service on a cost plus labor basis. Minimum charges will apply. Technical support will provide information on this service at the time of the call.

ESCIENT PRIVACY POLICY

Escient is committed to providing you with a product that you enjoy and are confident in using, and are committed to providing services in a private and secure environment.

We recognize and respect each individual user's privacy and have created this Privacy Policy to demonstrate our commitment to your privacy.

We want you to be fully informed about the information that we collect, why we collect it, and with whom we share it.

It is our hope that, after reading this notice, you will understand our commitment to privacy and be confident that we will use your information responsibly. By using the Escient FireBall, you are accepting the practices described in this Privacy Policy.

The option to read the Escient Privacy Policy appears on the zip code screen of the Quick Start automatic setup procedure. In addition, you can access the statement at any time by pressing the **SETUP** key and choosing the **GENERAL** menu, and then selecting the **PRIVACY POLICY** option..

CONTACT INFORMATION

Escient may be contacted by using the following information. Once you have worked with your local Escient dealer, we encourage you to contact us if you are in need of any further assistance.

Escient
6640 Intech Blvd. Suite 250
Indianapolis, Indiana 46278
Phone: 800-372-4368 Press "2" for Sales, or "3" for Support
Fax: 317-616-6790
Internet: www.escient.com
Email: support@escient.com
Hours: Monday - Friday 9:00am - 7pm EST

COPYRIGHT

This manual is copyright ©2005 by D&M Holdings and Escient. All rights reserved.

TERMS AND DEFINITIONS

Following are terms used throughout this manual:

- **Button -** refers to a graphic item on the display screen.
- **Group -** a collection of similar music titles. Standard genre groups are provided and custom groups can be created by the user.
- **Highlight -** highlighting is used to indicate the user's selection on screen. When the selection moves up, down, left, or right, the highlight moves to the next nearest item. No action is taken (except that more information may be displayed on the screen) until the Select key is pressed.
- **Info Text Area -** the portion of the guide screen used to display information about the highlighted title.
- **Playlist -** a collection of one or more music tracks or songs.
- **Title -** a collection of music tracks commonly referred to as a CD, Album or Playlist.
- **Key -** refers to one of the buttons on your remote or keyboard.
- **MP3 -** a compressed digital audio format. MP3 files are smaller than the original CD tracks and sound almost identical.
- **FLAC -** a lossless compressed digital audio format. FLAC files are smaller than the original CD tracks and are bit for bit duplicates of the original.
- **WMA -** a digital audio format from Microsoft which stands for Windows Media Audio.
- **Guide -** a grid or list of information, used to browse your media library.
- **Player -** the screen used to display the currently playing media.

SETUP

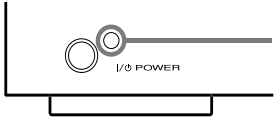
This manual assumes that you followed the printed "Quick Setup Guide" that came with your FireBall. If you have not properly connected your FireBall to your audio/video system, please go back and follow the "Quick Setup Guide" guide before continuing with this User Manual.

POWER STATES

After the FireBall unit is plugged in, the Standby LED located next to the power button will flash red until the startup process is complete.

Please wait. This may take several minutes.

When the Standby LED is solid RED, the FireBall is now in a standby or "sleep" mode. There is no video output when FireBall is in standby mode. Press the Power button (on the front panel or on the remote) once and the video output is displayed on your TV. The unit is now ON and the LED will be solid blue.



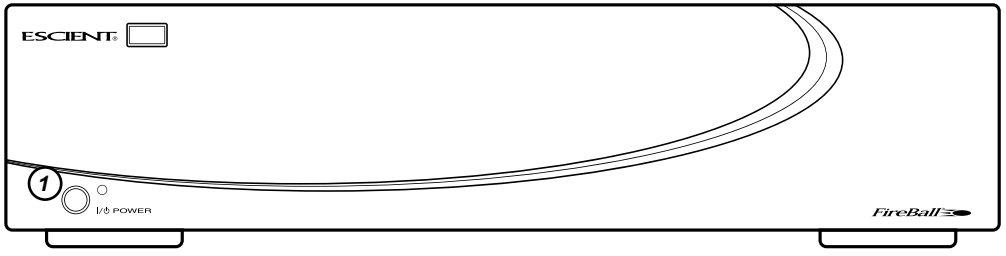
flashing red = starting up
solid red = standby
solid blue = on

To change from the ON mode back to the standby or "sleep" mode, press the Power button on the front panel or on the remote once. The video output will go blank and the LED will be solid red.

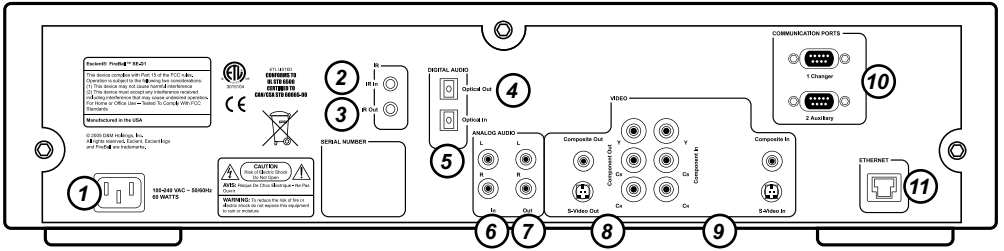
If power is removed from FireBall for any reason, including a power outage or if the unit is unplugged, FireBall will automatically return to the Standby state as soon as power is restored. When FireBall is turned on again, FireBall will return to the same source mode that it was in when power was lost.

To force the FireBall to restart, PRESS and HOLD the Power button on the front of the unit for 4 seconds, and release it when the standby LED starts blinking.

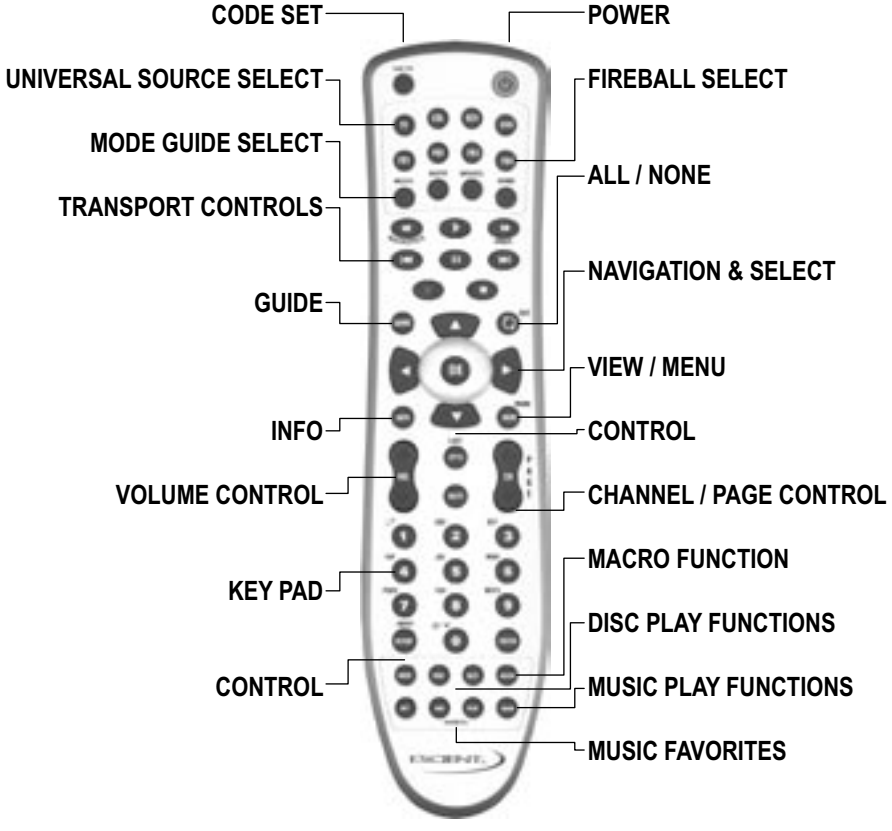
When the Standby LED is RED and FireBall has completed its startup process, press the Power button once to turn on the FireBall.

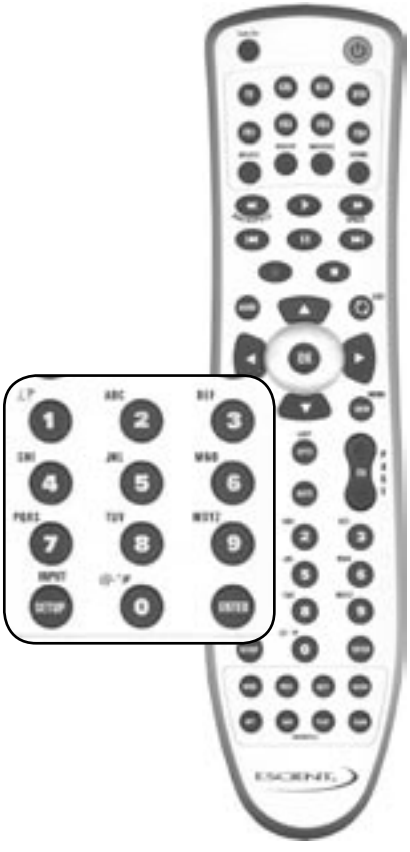


1 - POWER



1 - POWER
2 - IR IN
3 - IR OUT
4 - DIGITAL AUDIO OPTICAL OUT
5 - DIGITAL AUDIO OPTICAL IN
6 - ANALOG AUDIO IN
7 - ANALOG AUDIO OUT
8 - VIDEO OUT
9 - VIDEO IN
10 - COMMUNICATION PORTS
11 - ETHERNET


CODE SET
POWER
UNIVERSAL SOURCE SELECT
FIREBALL SELECT
MODE GUIDE SELECT
ALL / NONE
TRANSPORT CONTROLS
NAVIGATION & SELECT
GUIDE
VIEW / MENU
INFO
CONTROL
VOLUME CONTROL
CHANNEL / PAGE CONTROL
MACRO FUNCTION
KEY PAD
DISC PLAY FUNCTIONS
CONTROL
MUSIC PLAY FUNCTIONS
MUSIC FAVORITES



ENTERING TEXT WITH THE REMOTE CONTROL

The remote control can be used to enter text in all text fields. This text entry capability is provided to allow you to fill out short text fields – such as those that occur in the setup and edit screens. FireBall's wireless keyboard should be used when extended typing is required.

Entering Numeric Entry Mode

In fields where FireBall expects only numeric characters to be entered (such as phone number fields), an indicator will appear on the screen that displays the letters "123" indicating that only numbers can be entered.

Typing Characters with the Remote

The remote control based text entry capability is similar to that provided on standard telephones and cell phones. Each numeric key has characters associated with it that can be accessed by pressing the key one or more times. You have .5 seconds after a key is pressed to enter a second character from the same key. If you press the same key within .5 seconds, the second character associated with that key replaces the initial character. If you do not press the same key within .5 seconds, the text cursor moves to the next location so that the same key can be pressed again to enter a second character.

The "2", "3", "4", "5", "6", and "8" keys each support three letters and one number and can be pressed from one to seven times to display upper case, lower case, and numeric characters. The "7" and "9" keys both support four letters and one number and can be pressed from one to nine times. The "1" and "0" keys support all of the special characters and will cycle through each character for every key press.

The text characters follow the same convention used by a standard telephone – except in the case of the "1" and "0" keys which contain additional characters.

When entering characters at the beginning of a field or characters that follow a space, FireBall assumes that upper case characters are preferred. Therefore, characters are entered in the following cycle – uppercase, lowercase, and numeric. For example, the first key press enters an uppercase letter corresponding to the first letter associated with the key. Pressing the "2" key once displays an "A" in the text field, pressing the "2" key twice displays a "B", pressing it again will

display a “C”. The fourth key press displays a lower case “a”, the fifth key press displays a lower case “b”, and the sixth key press displays a lower case “c”. Lastly, pressing the “2” key a seventh time displays the number “2”.

When entering the second character in a text field or the second character following a space, FireBall assumes that lower case is preferred and the character entry cycles in the following pattern – lowercase, uppercase, and numeric.

The following text entry table describes the sequence of characters that appear when specific keys are pressed on the remote:

Key	Alpha Mode 1st character or 1st character after a space	Alpha Mode 2nd character or 2nd character after a space
1	1. / , ? ‘ : ; &~!	1. / , ? ‘ : ; &~!
2	ABCabc2	abcABC2
3	DEFdef3	defDEF3
4	GHIghi4	ghiGHI4
5	JKLjkl5	jklJKL5
6	MNOmno6	mnoMNO6
7	PQRSpqrs7	pqrsPQRS7
8	TUVtuv8	tuvTUV8
9	WXYZwxyz9	wxyzWXYZ9
0	0@ _ - * # [ ] ( )+=	0@ _ - * # [ ] ( )+=

CONNECTING EXTERNAL DISC CHANGER

The FireBall SE-D1 supports up to 400 DVD and/or CDs located in one external Sony DVP-777ES CD/DVD changer. If you require storage for more than 400 discs, please visit your Escient dealer to purchase larger capacity Escient products.

Connecting a Sony DVP-CX777ES CD/DVD Changer

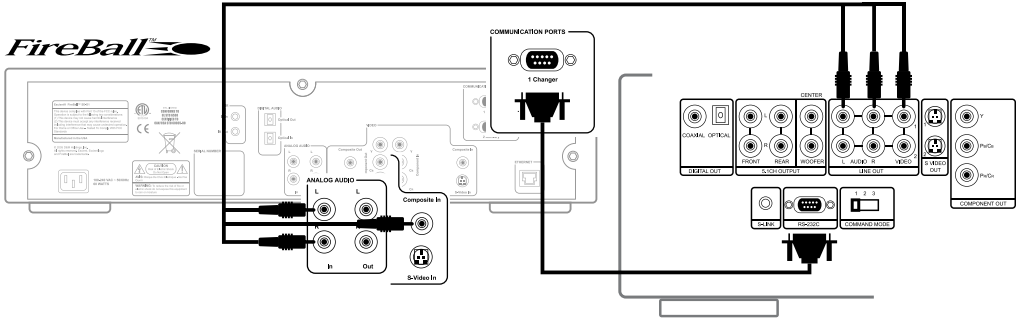
FireBall requires that you connect the changer to the back panel using audio and control cables.

Follow these steps to connect your Sony CD/DVD changer to your FireBall:

1. **An RS-232 serial null modem cable with female DB-9 connectors on each end is required for connecting a Sony CD/DVD Changer.**
2. **Connect one end of the RS-232 serial cable into Communication Port number 1, on the back of your FireBall.**
3. **Connect the other end of the RS-232 serial cable into the "RS-232C" port on the back of your changer.**
4. **Locate the stereo RCA audio patch cable that came with your changer.**
5. **Connect one end of the RCA audio cable into the Analog In jacks number 1 on the back of your FireBall**
6. **Connect the other end of the RCA audio cable into the Analog Line Out jacks on the back of your changer.**

- For the best audio quality, you should also connect digital optical or coax audio cables (not included) between your changers and FireBall.
- For the best video quality, you should also connnect component video cables (not included) between your changers and FireBall.

Note: Control Cable Pin-Outs and Requirements. FireBall uses a standard null modem cable to connect between it's RS-232 COM ports and external changers and control systems. Cables must be 25 feet or less in length.



LOADING DVD MOVIE DISCS INTO CHANGERS

Insert DVDs into your changers, following the changer manufacturer's instructions and close the changer door. Quick Lookup will automatically start in a few seconds. If the Quick Lookup process does not automatically start, then manually start the Lookup using the steps described below.

The disc information that FireBall displays on your TV screen is NOT included on the original CDs that you recorded or CDs/DVDs loaded into your changers. The artist name, album name, and track list are provided by the Gracenote® Music Recognition Service. The album cover, movie title, movie info, and movie cover art are provided by the Escient service. This information is downloaded from the Escients servers to your FireBall using your Internet connection. This process is referred to as "Looking up Disc Information".

Loading your Movies
Connect up to external CD/DVD changer and let Fireball manage all 400 discs. Play and view them all from one easy to use interface and remote control.

Automatically Getting Disc Information

Once your changers are connected to FireBall and loaded with CDs/DVDs, all you have to do is close the changer door and in a few seconds FireBall will begin looking up the disc information from each disc, in each changer.

Quick Lookup checks each previously empty slot in the changers to see if any new discs were added, and then checks each previously occupied slot in the changer to see if any discs were removed.

One by one, the Table of Contents is read from each CD/DVD and compared to the local music database, Escient's MovieDB™ service, or Gracenote CDDB® using your Internet connection, as FireBall builds your Music/Movies Library. As each disc is accessed and looked up, the Quick Lookup screen is updated to display the disc's information and cover art. When all of the discs are looked up, the Guide screen will be displayed.

You can manually run Quick Lookup at any time by following these steps:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the CHANGER MANAGEMENT menu.**
3. **Select the QUICK LOOKUP menu.**
4. **FireBall will perform a Quick Lookup for each new disc.**

***WARNING**: Quick Lookup checks for newly added and removed CDs each time it runs. Do not remove CDs and replace new CDs into the same changer slots without running Quick Lookup in-between, or FireBall will not know that these slots have changed.*

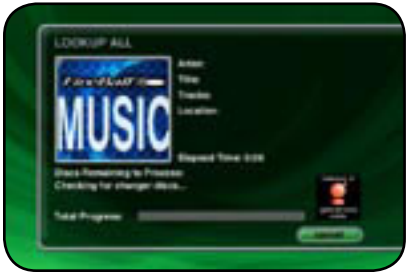
If you want to reuse the same slots, first remove your CDs, let Quick Lookup run, then add new CDs to the same slots.

Getting Disc Information for a Range of Discs

If you want to lookup the disc information for a specific range of slots in a changer, you can use the Lookup Range feature.

Follow these steps to lookup a range of changer slots:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the CHANGER MANAGEMENT menu.**
3. **Select the LOOKUP RANGE menu.**
4. **Enter a valid range of slots to lookup. If you have more than 1 changer, select which changer you want to use.**
5. **Select the CONTINUE button.**
6. **The Lookup Range screen displays the progress and results for each disc in the selected range.**



Getting Disc Information for All Discs

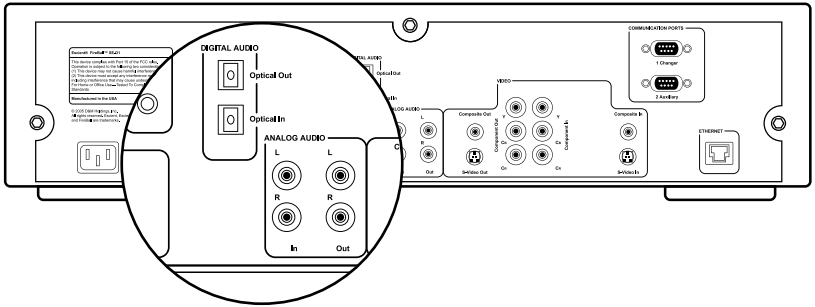
If you want to lookup the disc information for all discs you can use the Lookup All feature.

Follow these steps to lookup all discs in all changers:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the CHANGER MANAGEMENT menu.**
3. **Select the LOOKUP ALL menu.**
4. **The Lookup All screen displays the progress and results as each disc is looked up.**

AUDIO OUTPUTS

The optical and analog audio outputs are all active when playing media from the internal hard drive or Internet Radio. Both digital and analog connections must be made from the changer to the FireBall for the FireBall to output both digital and analog outputs.



This table shows which audio outputs are active for each type of audio source.

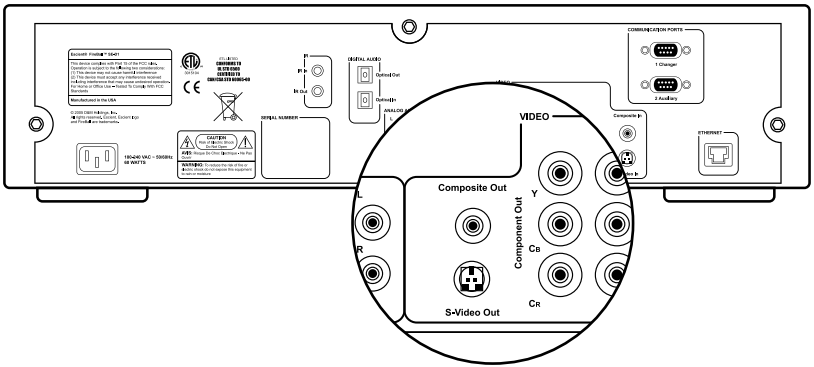
Audio Source	Analog Out	Digital Optical Out	Digital Coax Out
Changer Analog	YES		
Changer Optical		YES	YES
Changer Coax		YES	YES
Internet Radio	YES	YES	YES

For example, connecting only the analog audio outputs of the changer to the FireBall will not provide digital audio on the digital outputs of the FireBall.

VIDEO OUTPUTS

FireBall has several video output formats and connectors including:

- S-Video
- Composite Video
- Component Video (480i interlaced standard definition)



All video outputs are active at the same time, so you can use as many as you like without causing signal degradation.

The Component Video output will provide the best possible video quality for the FireBall User Interface, but will require that your video system has an available component input.

RS-232 CONNECTIONS

The Sony disc changer is controlled via two-way serial protocols using an RS-232 serial cable. Connect the Sony changer to COM port “1 Changer”.

COM port “2 Auxiliary” is reserved for future use.

IR CONNECTIONS

The direct IR input jack on the back panel of the FireBall is for controlling FireBall from a wired IR distribution system such as a Xantech system. This connection must be an IR signal with a 36kHz carrier using an 1/8” mono or stereo connector.

The IR input jack provides 12V power. This means that you can directly connect a 12V IR receiver (like the Xantech series 291 units) to the FireBall using a 1/8” stereo connector.

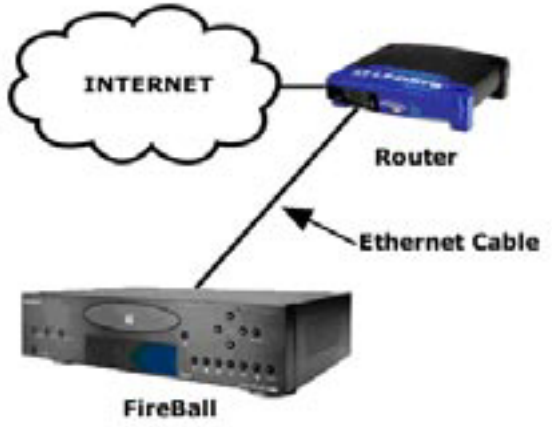
ETHERNET CONNECTIONS

The Ethernet jack on the back panel of the FireBall accepts any standard twisted pair CAT5 Ethernet cable. If you are connecting FireBall to a home network, you typically connect a standard Ethernet cable from your Ethernet router or hub to the FireBall.

There are different grades, or categories, of twisted-pair cabling. Category 5 is the most reliable and widely compatible, and is highly recommended. It runs easily with 10Mbps networks, and is required for 100Mbps networks. You can buy Category 5 cabling that is pre-made, or you can cut & crimp your own.

Category 5 cables can be purchased or crimped as either straight-through or crossed. A Category 5 cable has 8 thin, color-coded wires inside that run from one end of the cable to the other. Only wires 1, 2, 3, and 6 are used by Ethernet networks for communication. Although only four wires are used, if the cable has 8 wires, all the wires have to be connected in both jacks.

Straight-through cables are used for connecting computers to a hub. Crossed cables are used for connecting a hub to another hub (there is an exception: some hubs have a built-in uplink port that is crossed internally, which allows you to uplink hubs together with a straight cable instead).

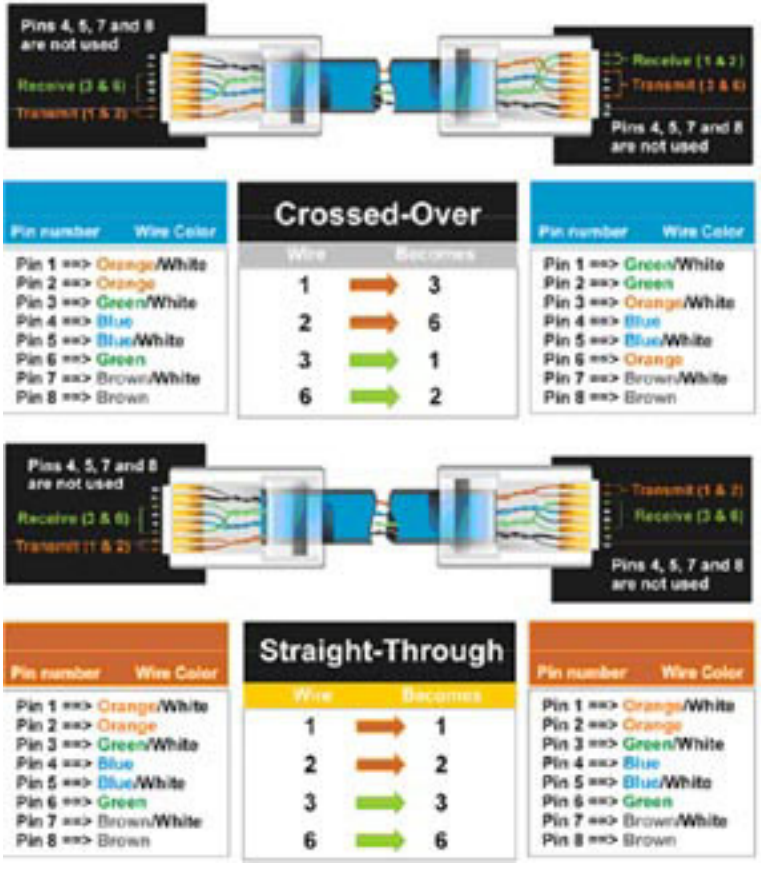


In a straight-through cable, wires 1, 2, 3, and 6 at one end of the cable are also wires 1, 2, 3, and 6 at the other end. In a crossed cable, the order of the wires change from one end to the other: wire 1 becomes 3, and 2 becomes 6.

To figure out which wire is wire number 1, hold the cable so that the end of the plastic RJ-45 tip (the part that goes into a wall jack first) is facing away from you. Flip the clip so that the copper side faces up (the springy clip will now be parallel to the floor). When looking down on the coppers, wire 1 will be on the far left.

CAT5 cabling should not exceed 100 meters. The following drawing depicts the typical wiring scheme for CAT5.

For more information about wiring an Ethernet network, please refer to the Linksys web site **(www.linksys.com)**.



REGISTRATION

Registering your FireBall is accomplished automatically when you go through the Quick Start process described in the User's Manual. Registration includes properly configuring your FireBall for Internet access and then connecting to the Escient servers to register your serial number and download the latest Internet Radio stations.

If you experience difficulty completing the registration process in Quick Start, follow these guidelines to make sure you have all of the required information and that you can make the proper connection to your Internet Service Provider and the Escient Servers.

TESTING A BROADBAND CONNECTION

1. **Check the Ethernet Network Link - The green LED next to the FireBall's back panel Ethernet jack should be on when properly connected to an Ethernet network.**
2. **From the Ethernet Connection Quick Start screen, select the "perform test" button. This will start the Ethernet Connection test which will test the following network settings:**
   a. **The ethernet link to your router or hub.**
   b. **The DHCP addressing if you selected Dynamic IP Addressing.**
   c. **The connection to your default Gateway (your route to the Internet).**
   d. **The connection between your router and the Escient server.**

If any of these tests fail, check your ethernet wiring with the proper test equipment, make sure your router is properly configured as a DHCP router, and that you can access the internet using the same network connection using a PC.

Check with your ISP or network administrator if you need assistance determining whether or not you should use DHCP IP addressing. If you are going to use a static IP address, it must be in the proper range assigned to your subnet. Again, check with your ISP or network administrator before using a static IP address.

BROWSING YOUR MOVIE LIBRARY

Now that you have your DVD movies loaded into your changers and the movie information has been acquired from the Escient MovieDB using the Quick Lookup feature, it's time to see what's in your collection using the Movies Guide.

The **Movies Guide** displays a scrolling list of all your Movies. Using the remote control, you can navigate up and down the list. As each Title is highlighted, you will notice that the Information Area and Cover Art changes to reflect the currently highlighted movie title.

PLAYING THE CURRENT MOVIE

Playing the currently highlighted Movie is the same as playing a DVD in a standalone DVD player. Simply press the **PLAY** key on the remote control and the changer will load the movie and begin to play it.

Once you select the movie to play, the TV screen will change to display the selected movie and hide the FireBall user interface.

SELECTING A DIFFERENT MOVIE

While a movie is playing, you can press the **GUIDE** key on the remote control to display the Movies Guide. The current movie is paused when you switch over the to Guide. Press the **GUIDE** key again to toggle back to the full screen movie and pickup where you left off.

Movie Info

View detailed infromation for the currently highlighted movie by pressing the **Info** button on the remote.

CHANGING THE GUIDE VIEW

The Movies Guide provides you with two different ways to view the contents of your DVD Movie Library. There are two Views that you can switch between using the **MENU/VIEW** key on the remote control:

- View By Title
- View By Cover

View By Title

View By Title will order the list of DVD Titles alphabetically from A to Z, according to the Movie Title.

View By Cover

View By Cover displays a graphical 4x2 grid of DVD cover art, sorted alphabetically from A to Z, according to the Movie Title.

VIEWING BY GENRE

In addition to the current Guide View, the Movies Guide automatically organizes your DVDs into default “Genres” also called “Groups”. The Group Bar displays a horizontal scrolling list of Genres corresponding to the movies in your library. Five Genres or Groups are visible at one time. The “All” genre is the default, which displays all Titles in your Movie Library.

BROWSING YOUR MUSIC LIBRARY

If you have CDs loaded into your external changers or if you have a FireBall Music server on the same network as your SE-D1, the Music Guide is used to access your entire music collection. The **Music Guide** allows you to browse, locate, and play all of your music in one easy to use on-screen guide.

The **Music Guide** displays a scrolling list of all your Music Titles. Using the remote control, you can navigate up and down the list. As each Title is highlighted, you will notice that the Information Area and Cover Art changes to reflect the currently highlighted Title.

SHOW AND HIDE TRACKS

If you press the **SELECT** key on the remote control, you will expand the current Title to reveal a list of the Title's **Tracks**.

Press the **SELECT** key again (when a Title is highlighted) to collapse the current Title and hide the track names.

PLAYING THE CURRENT TITLE

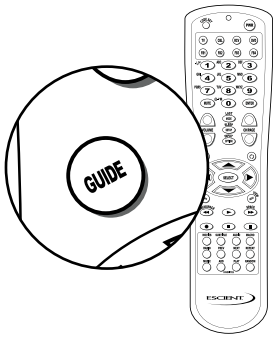
Playing the currently highlighted Title is the same as playing a CD in a conventional CD player. Simply **press the PLAY key** on the remote control and it begins to play from track 1.

Note: If you press SELECT with a Track highlighted, you will start playback from the selected Track.

You'll notice that a new screen appears with a list of the songs (or tracks) on the current Title, this is the **Music Player** screen. The Music Player displays the artist name, album name, album cover art, and track list for the current Title.

SELECTING A DIFFERENT SONG

In the Music Player you can navigate up and down the track list using the remote control. Highlight a different song and press **SELECT** to play the song.



CHANGING THE GUIDE VIEW

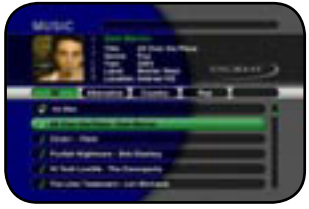
The GUIDE button on the remote control is used to switch between the Music Guide and Music Player screens. When you are viewing the Music Player screen, press the GUIDE button to return to the Music Guide.

The Music Guide provides you with several ways to view the contents of your Music Library. One of the easiest ways to browse and sort your Music Library is by using the Music **"Views"**. There are four Views that you can switch between using the "MENU/VIEW" key on the remote control:

- View By Artist
- View By Title
- View By Song
- View By Cover

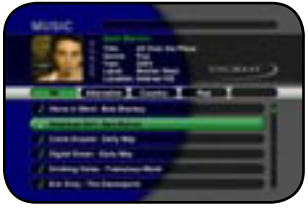
View By Artist

View By Artist is the default View and displays your Music Library alphabetically from A to Z using according to the Artist Name then the Album Name.



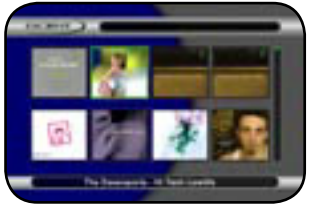
View By Title

View By Title will order the list of Titles alphabetically from A to Z, according to the Album Name then the Artist Name.



View By Song

View By Song will order the list of Titles alphabetically from A to Z, according to the Song Name.



View By Cover

View By Cover displays a graphical 4x2 grid of album cover art, sorted alphabetically from A to Z, according to the Artist Name then Album Name.

CHANGING THE CURRENT PLAY MODE

The default Play Mode will play the current Title from Track 1 to the last track in order, then stop. If you want to change the order of how tracks are played, there are six different Play Modes to choose from:

- **Normal -** play each track in order in the current Title, then stop.
- **Repeat Track -** repeat the same track over and over until you press stop.
- **Repeat Title -** play each track in the current Title in order then repeat the entire disc until you press stop.
- **Repeat Group -** play each track in each title in the current group and then repeat them until you press stop.
- **Random Title -** randomly select and play a track from within the current title. Continue until you press stop or every track in the current title is played.
- **Random Group -** randomly select and play a track from any title in the current group. Continue until you press stop or every track in the current group is played

To change the current Play Mode, press the MODE key on the remote control. Each press of the MODE key will switch to the next Play Mode. Stop pressing the MODE key when you see the desired Play Mode appear on the screen. You can also directly select a Play Mode using the OPTIONS key and the Play Mode menu item.

VIEWING BY GENRE

In addition to the current Guide View, the Music Guide automatically organizes your Music into default "Genres" also called "Groups". The Group Bar displays a horizontal scrolling list of Genres corresponding to the music in your library. Five Genres or Groups are visible at one time. The "All" genre is the default, which displays all Titles in your Music Library.

Using the **LEFT** and **RIGHT** arrow keys on the remote, you can select a different Genre. Notice that the list of Titles updates to show only Titles in the selected Genre.

- Scroll all the way to the left to return to the All Genre.
- Genre list will scroll to the right to reveal more Genres.
- Refer to the section "Managing Your Media" for instructions on creating your own groups from favorite music titles

BROWSING INTERNET RADIO STATIONS

The **Radio Guide** displays a scrolling list of Internet Radio Stations. Using the remote control, you can navigate up and down the list. As each Station is highlighted, you will notice that the Information Area and Cover Art changes to reflect the currently highlighted Station.

- Press the iRADIO key on the remote control to display the Radio Guide.
- Press the MUSIC key to return to the Music Guide

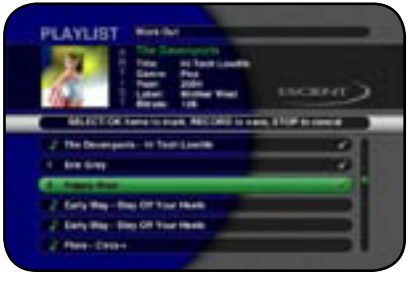
Note: Internet Radio is only available if you have a Broadband Internet connection.

PLAYING THE CURRENT STATION

Playing the currently highlighted Radio Station is the same as selecting and playing an off air radio station on a typical audio receiver. Simply **press the SELECT key** on the remote control and the currently highlighted station will be located, buffered, and then played.

You'll notice that a new screen appears displaying information about the selected station. This is the **Radio Player** screen. The Radio Player displays the station name, location, genre, genre cover art, and status about the current Internet Radio station stream.

- Playing Internet Radio requires a valid Internet connection.
- Although some stations will work over a Dialup Internet Connection, a broadband Internet connection is recommended.
- Due to the dynamic nature of the Internet, you may experience periodic audio drop-outs which could be due to many factors such as Internet access problems, busy networks, etc...
- Internet Radio Stations are not hosted by Escient and may not be available at all times. You can update your Internet Radio Stations list by running Tune Stations. Please refer to the "Managing Your Media" section for more information.
- Cover art, song name, and artist name are displayed only if the information is sent by the Internet Radio Station broadcaster.



CREATING PLAYLISTS

FireBall allows you to organize your favorite songs into custom “Playlists”. A Playlist is simply a group of songs that you choose from your Music Library. Common uses for Playlists are:

- Collections of your favorite songs
- Songs that have a similar tempo or feel (mellow mix)
- Custom albums from one or more of your favorite artists
- Party mixes
- Workout mixes

Follow these steps to create your own custom Playlist:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Music Options Menu**
3. **Select the NEW PLAYLIST menu item.**
4. **Using the remote control or keyboard, enter a name for your Playlist.**
5. **Select the CONTINUE button on screen to advance to the Edit Playlist Select Guide. The Edit Playlist Select Guide works just like the Music Guide. Navigate up and down to highlight, expand, or collapse music titles.**
6. **For each song you want to add to the Playlist, highlight the song name and press the SELECT key on the remote. A checkmark appears to the right of each selected song indicating that it will be added to the Playlist. Press SELECT again to remove the checkmark.**
7. **When you have selected all of the songs you want to include in the playlist, press the RECORD button on the remote control to save the Playlist.**

- When you are finished creating your Playlist, the Music Guide is displayed highlighting the newly created Playlist.
- You can play any Playlist the same way you play a music title or CD. Just press the PLAY key on the remote control.
- Notice that a Playlist genre is added to the Group Bar. The Playlist genre will always be available as long as you have at least one playlist in your Music Library.

CREATING GROUPS

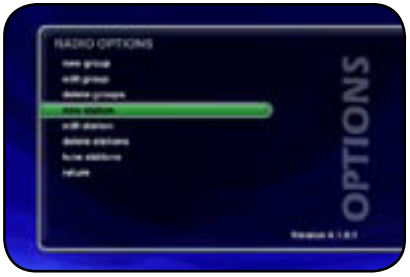
In addition to Playlists, FireBall allows you to create custom "Groups" of Movies, Music Titles or Radio Stations. User created Groups appear in the Group Bar along with the automatically created Genre Groups and System Groups (All, CDs, Internal, and Playlists). Some uses for custom Group are:

- Group similar movies together.
- Create custom groups of your favorite movies.
- Organize music titles or radio stations into custom genres, like "Funk", 80's, "Hits', etc…
- Group all of the albums for a favorite artists together for quick access.
- Create an easily accessible collection of your favorite albums.

To create a custom Group, follow these steps:

1. **Press the MOVIES key to make sure you are in the Movies source mode, MUSIC key to make sure you are in the Music source mode or press the RADIO key if you want to create a custom Radio Group.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the NEW GROUP menu item.**
4. **Using the remote control or keyboard, enter a name for your Group.**
5. **Select the CONTINUE button on screen to advance to the Edit Group Select Guide. The Edit Group Select Guide works just like the Music or Radio Guide.**
6. **For each Music Title or Radio Station you want to add to the Group, highlight the Title or Station name and press the SELECT key on the remote. A checkmark appears to the right of each selected Title or Station indicating that it will be added to the Group. Press SELECT again to remove the checkmark.**
7. **When you have selected all of the Titles or Stations you want to include in the group, press the RECORD button on the remote control to save the Group.**

- When you are finished creating your Group, the Guide is displayed highlighting the newly created Group.
- Notice that a custom Group is added to the Group Bar along with the System Groups.
- The custom Group will always be sorted alphabetically within the Group Bar and appear to the right of the All and Playlist Groups.



ADDING INTERNET RADIO STATIONS

FireBall comes preloaded with several high quality streaming Internet Radio Stations from around the world, but that may not be enough for you, so FireBall also let's you add your own Internet Radio Stations.

Internet Radio stations must conform to these specifications:

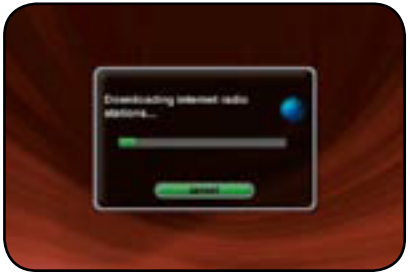
- Windows Media WMA or MPEG II layer 3 streams.
- Windows Media 9 or earlier.

To add your own Internet Radio Stations, you will need to obtain the URL or Internet Link to the stream using your PC.

Assuming you have a valid URL for a station, follow these steps to add your own Internet Radio Station to the Radio Guide:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the NEW STATION menu item.**
4. **Using the remote or keyboard, enter information for the new station including: station name, location, URL, the bit rate of the stream, the genre, the stream type (MP3 or WMA), and the number of channels (mono or stereo). The default cover art will be set according to which genre you select.**
5. **Select the SAVE button to save the new station.**

- When you are finished creating your new station, the Radio Guide is displayed highlighting the newly created Station.
- You can play the station just like any other Internet Radio station.



UPDATING THE INTERNET RADIO STATIONS LIST

Escient makes every attempt to insure that the preloaded Internet Radio Stations are alive and well, but due to the dynamic nature of the Internet and the third parties who actually serve up these radio streams, sometimes you will not be able to play a station. The "Tune Stations" feature allows you to download a list of the most recent Internet Radio stations from Escient.

Note: Tune Stations WILL NOT erase any custom stations you may have added, from your Radio Guide. It WILL replace the Escient supplied stations with a fresh new list.

If you want to replace the current Internet Radio Stations with a new list of stations, follow these steps:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the TUNE STATIONS menu item.**
4. **Read the WARNING screen and select OK to proceed.**
5. **FireBall will Connect to the Escient server and download the latest Internet Radio Stations.**

When you are finished Tuning the Stations, the Radio Guide is displayed showing the new Escient provided Internet Radio Stations and any user added stations.

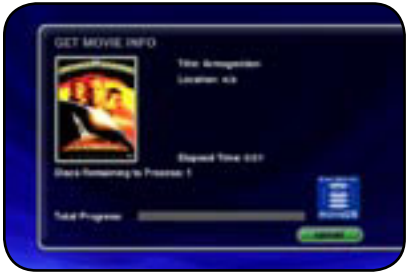
EDITING MOVIE INFORMATION

FireBall has access to tens of thousands of DVD titles, but you may still encounter a DVD that does not return the correct disc information from the Escient MovieDB™. You can edit the disc information for any DVD Movie Title using the Edit Disc screens.

Editing Disc Info

Follow these steps to edit the disc information for the current Movie Title:

1. **Highlight the Movie Title you want to edit in the Movies Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC menu item to display the Edit Disc Information screen.**
4. **Using the remote control or wireless keyboard, change the movie title, cast list, year of release, running time, rating, aspect ration, genre or movie description.**
5. **Select the SAVE button to save your changes and return to the previous screen.**



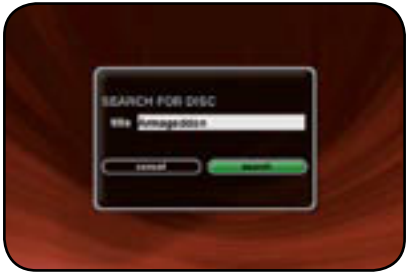
Automatically Lookup Information for This Disc

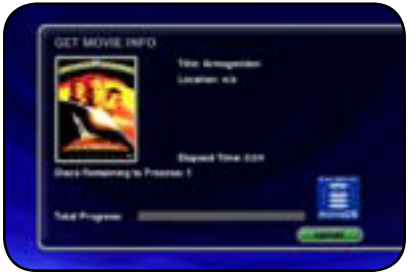
The "Lookup This Disc" button will initiate a disc lookup for only this disc. FireBall will connect to the Escient MovieDB™ Service to locate and download the disc information.

Follow these steps to lookup information for the current disc:

1. **Highlight the Music Title you want to edit in the Movies Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC menu item to display the Edit Disc Information screen.**
4. **Select the LOOKUP THIS DISC BUTTON. The Get Movie Info screen will be displayed as FireBall attempts to lookup the disc information from the Escient MovieDB™ for you.**
5. **When the lookup is complete, you will return to the Edit Disc Information screen where you can verify or edit the results.**
6. **Select the SAVE button to save your changes and return to the previous screen**

Selecting the **PREVIOUS** or **NEXT** buttons will save any edits you have made to the current disc and display the information for the previous or next disc.





Searching for Movie Information Manually

Occasionally the MovieDB™ will not return the movie information and cover art. This might happen if the movie is a very new or different release. You can wait a few days and try to Lookup Unknown discs, or you can manually search for the disc information by using the "Search for Movie" feature. This is a powerful tool that allows you to search the Escient MovieDB™ servers for an exact or partial match using the movie title.

Follow these steps to search for a cover:

1. **Highlight the Movie Title you want to edit in the Movies Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC menu item to display the Edit Disc Information screen.**
4. **Select the SEARCH FOR MOVIE button to display the Search for Movie screen.**
5. **The current Movie Title is entered as the default search string. You can change the Title to modify the search. Note that editing the Title WILL NOT change it in the Movie Library. These edits are ONLY used to search for a movie.**
6. **Select the SEARCH button to start the search.**
7. **The Get Movie Info screen will be displayed as FireBall attempts to search for the movie information using the Movie Title you entered.**
8. **When the search is complete, you will return to the Edit Disc Information screen where you can verify or edit the results.**
9. **Select the SAVE button to save your changes and return to the previous screen.**

Tips for Searching for Movies

The Escient server uses a fuzzy-match algorithm to locate a matching movie using the Movie Title you enter. There are a few tips to try when searching for movies:

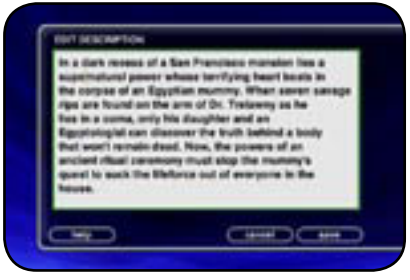
- Remove any punctuation marks from the Title
- Remove Disc Numbers from the Titles
- Try different spellings in the Title
- Try removing part of the Title (if it is more than 2 words)

Selecting an Existing Cover

If for some reason you can not download the original cover, you can choose one of the existing covers for the current Title.

Follow these steps to select an existing cover to assign to the current Title:

1. **Highlight the Movie Title you want to edit in the Movie Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC` menu item to display the Edit Disc Information screen.**
4. **Select the SELECT COVER button to display the Select Cover Art screen.**
5. **Using the arrow and page keys on the remote control, locate the name of the Title corresponding to the cover you wish to use for the current Title. Notice that a preview of the selected cover appears on the right of the list as you highlight each name.**
6. **Press the SELECT key on the remote control when you have located the cover of your choice.**
7. **Select the SAVE button to save your selection and return to the previous screen.**

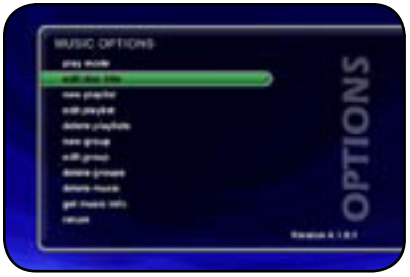


Edit Description

If for some reason you can not download the original description, you can edit it.

Follow these steps to select an existing cover to assign to the current Title:

1. **Highlight the Movie Title you want to edit in the Movie Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC` menu item to display the Edit Disc Information screen.**
4. **Select the EDIT DESCRIPTION button to display the Edit Description screen.**
5. **Using the arrow keys and alpha/numeric buttons edit the description.**
6. **Press the SELECT key on the remote control when you have edited your movie description.**
7. **Select the SAVE button to save your selection and return to the previous screen.**



EDITING MUSIC INFORMATION

FireBall has access to over 2.5 million CD titles, but you may still encounter a CD that does not return a custom cover or the correct disc information. You can edit the disc information for any Music Title using the Edit Disc and Edit Tracks screens.

Editing Disc Info

Follow these steps to edit the disc information for the current Music Title:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC INFO menu item to display the Edit Disc Information screen.**
4. **Using the remote control or wireless keyboard, change the artist name, album title, label, year of release, or genre.**
5. **Select the SAVE button to save your changes and return to the previous screen.**

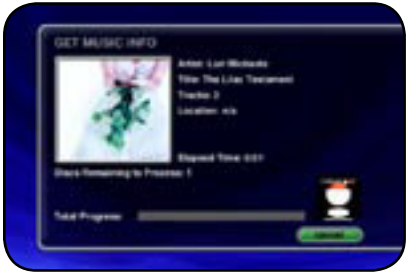
Selecting the **PREVIOUS** or **NEXT** buttons will save any edits you have made to the current disc and display the information for the previous or next disc.

Editing Track Names

You can also manually edit the Track/Song names of the currently highlighted Title in the Music Guide.

Follow these steps to edit the track information for the current Music Title:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC INFO Info menu item to display the Edit Disc Information screen.**
4. **Select the EDIT TRACKS button to display the Edit Tracks screen.**
5. **Using the remote control or wireless keyboard, change the name of each track.**
6. **Press the SELECT button to advance to the next track.**
7. **Select the SAVE button to save your changes and return to the previous screen.**

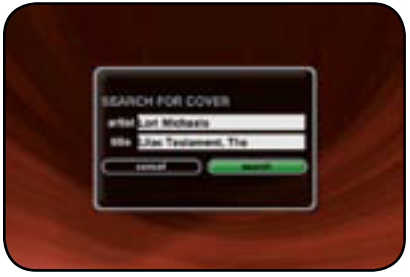


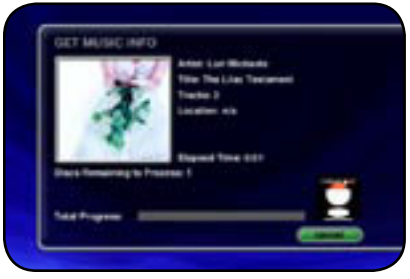
Automatically Lookup Information for This Disc

The "Lookup This Disc" button will initiate a disc lookup for only this disc. FireBall will connect to the Gracenote® Music Recognition Service to locate and download the disc information.

Follow these steps to lookup information for the current disc:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC INFO menu item to display the Edit Disc Information screen.**
4. **Select the LOOKUP THIS DISC BUTTON. The Get Music Info screen will be displayed as FireBall attempts to lookup the disc information from the Gracenote® Music Recognition Service for you.**
5. **When the lookup is complete, you will return to the Edit Disc Information screen where you can verify or edit the results.**
6. **Select the SAVE button to save your changes and return to the previous screen.**





Searching for the Original Cover

Occasionally the wrong cover or the default cover will be displayed for a Music Title. You can manually search for the original cover art by using the "Search for Cover" feature. This is a powerful tool that allows you to search the Escient servers for an exact or partial match using the artist name and/or album name.

Follow these steps to search for a cover:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC INFO menu item to display the Edit Disc Information screen.**
4. **Select the SEARCH FOR COVER button to display the Search for Cover screen.**
5. **The current Artist Name and Album Title are entered as the default search strings. You can change either one of these to modify the search. Note that editing the Artist Name or Title WILL NOT change them in the Music Library. These edits are ONLY used to search for a new cover.**
6. **Select the SEARCH button to start the search.**
7. **The Get Music Info screen will be displayed as FireBall attempts to search for the cover using the Artist Name and Title you entered.**
8. **When the search is complete, you will return to the Edit Disc Information screen where you can verify or edit the results.**
9. **Select the SAVE button to save your changes and return to the previous screen.**

Tips for Searching for Covers

The Escient server uses a fuzzy-match algorithm to locate a matching cover using the Artist Name and Title you enter. There are a few tips to try when searching for covers:

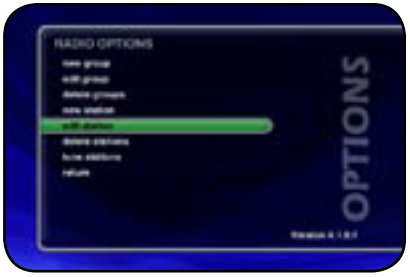
- Remove any punctuation marks from the Artist Name and Title.
- Remove Disc Numbers from the Titles.
- Try different spellings in the Title.
- Try removing part of the Artist Name (if it is more than 2 words).

Selecting an Existing Cover

If for some reason you can not download the original cover, you can choose one of the existing covers for the current Title.

Follow these steps to select an existing cover to assign to the current Title:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC INFO menu item to display the Edit Disc Information screen.**
4. **Select the SELECT A COVER button to display the Select Cover Art screen.**
5. **Using the arrow and page keys on the remote control, locate the name of the Title corresponding to the cover you wish to use for the current Title. Notice that a preview of the selected cover appears on the right of the list as you highlight each name.**
6. **Press the SELECT key on the remote control when you have located the cover of your choice.**
7. **Select the SAVE button to save your selection and return to the previous screen.**

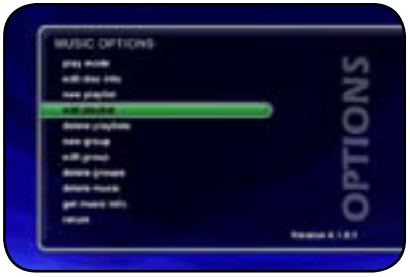


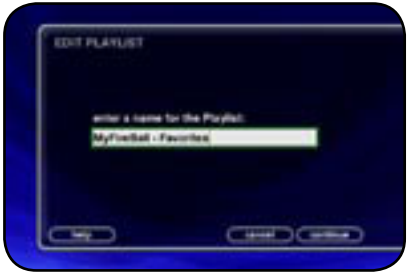
EDITING RADIO INFORMATION

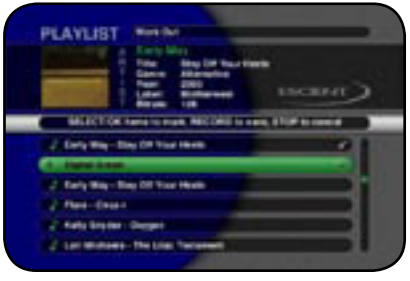
Similar to editing Music Information, you can also Edit the Radio Information.

Follow these steps to edit the station information for the currently highlighted Internet Radio Station:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the EDIT STATION menu item to display the Edit Station screen.**
4. **Using the remote or keyboard, edit the information for the new station including: station name, location, URL, the bit rate of the stream, the genre, type of stream (MP3 or WMA), and the number of channels (mono or stereo). The cover art will be set according to which genre you select.**
5. **Select the SAVE button to save the changes.**







EDITING PLAYLISTS

You can change the name and add or remove tracks from any Playlist you created.

Follow these steps to edit a Playlist:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Highlight the Playlist Name you want to edit. Note: The Playlist group will list all of your Playlists.**
3. **Press the OPTIONS key to display the Music Options Menu**
4. **Select the Edit Playlist menu item.**
5. **Using the remote control or keyboard, change the name of your Playlist or select the CONTINUE button on screen to keep the current name and advance to the Edit Playlist Select Guide.**
6. **For each song you want to add to the Playlist, highlight the song name and press the SELECT key on the remote. A checkmark appears to the right of each selected song indicating that it will be added to the Playlist.**
7. **For each song you want to remove from the Playlist, highlight the song name and press the SELECT key on the remote. The checkmark to the right of the song will be removed, indicating that the song should be removed from the Playlist.**
8. **When you have added or removed all of the songs you want to include in the playlist, press the RECORD button on the remote control to save the Playlist.**

- If you remove all songs from a Playlist, the Playlist is automatically deleted.
- You can not reorder songs within a current Playlist.

EDITING GROUPS

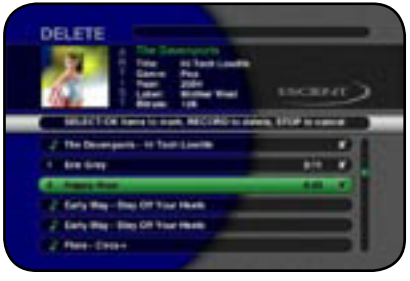
As with Playlists, you can also edit the name of a Group, add Music Titles or Radio Stations to the Group, or remove Music Titles or Radio Stations from the Group.

Follow these steps to edit a Group:

1. **Press the MUSIC key if you want to edit the Music Groups or press the RADIO key if you want to edit the Radio Groups.**
2. **Highlight the Group you want to edit within the Group Bar.**
3. **Press the OPTIONS key to display the Music Options Menu**
4. **Select the Edit Group menu item.**
5. **Using the remote control or keyboard, change the name of your Group or select the CONTINUE button on screen to keep the current name and advance to the Edit Group Select Guide.**
6. **For each Music Title or Radio Station you want to add to the Group, highlight the Music Title or Radio Station and press the SELECT key on the remote. A checkmark appears to the right of each selected Music Title or Radio Station indicating that it will be added to the Group.**
7. **For each Music Title or Radio Station you want to remove from the Group, highlight the Music Title or Radio Station and press the SELECT key on the remote. The checkmark to the right of the Music Title or Radio Station will be removed, indicating that the Music Title or Radio Station should be removed from the Group.**
8. **When you have added or removed all of the Music Titles or Radio Stations you want to include in the playlist, press the RECORD button on the remote control to save the Group.**

You can not edit the System Groups (All, CDs, Internal, or Playlists).

- If you remove all Titles or Stations from a Group, the Group is automatically deleted.
- You can not reorder Titles and Stations within a Group. They are always sorted alphabetically.



DELETING MUSIC

You can remove any music you have recorded to a FireBall server by using the Delete Music feature. You may want to do this if you have filled up your FireBall and you can not record any more music or if you want to remove songs that you just don't listen to.

Follow these steps to delete music from your FireBall:

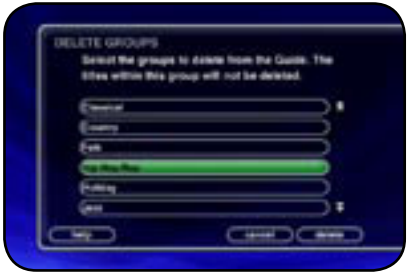
1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE MUSIC menu item to display the Delete Music Info screen.**
4. **Press the CONTINUE button to proceed to the Delete Music Guide.**
5. **For each Track you want to delete, highlight the Track and press the SELECT key on the remote. A checkmark appears to the right of each selected Track indicating that it will be deleted. Press the SELECT key again to remove the checkmark. Pressing the TOGGLE key on the remote when a Title is highlighted will toggle all or none of the Title's tracks for deletion.**
6. **When you have selected all of the Titles you want to delete in the group, press the RECORD button on the remote control to permanently remove and delete the checked tracks.**

You can not "delete" physical CDs from the Music Library. You must remove the discs from your changers if you want the CDs to be removed from the Music Guide.

DELETING PLAYLISTS

You may delete entire Playlists from the Music Guide. Follow these steps to permanently delete one or more Playlists from the Music Guide:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE PLAYLISTS menu item to display the Delete Playlists screen.**
4. **For each Playlist you want to delete, highlight the Playlist and press the SELECT key on the remote. A checkmark appears to the right of each selected Playlist indicating that it will be deleted. Press the SELECT key again to remove the checkmark.**
5. **When you have selected all of the Playlists you want to delete, select the DELETE button to permanently remove and delete the checked Playlists.**



DELETING GROUPS

Deleting Groups from the Group Bar is very similar to deleting Playlists. The contents of the Group (the Music Titles, Movie Titles, or Radio Stations) are not deleted. They are still available in any other Groups they may be assigned to and in the All Group.

Follow these steps to delete Groups.

1. **Press the MUSIC key if you want to edit the Music Groups or press the RADIO key if you want to edit the Radio Groups.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE GROUPS menu item to display the Delete Playlists screen.**
4. **For each Playlist you want to delete, highlight the Playlist and press the SELECT key on the remote. A checkmark appears to the right of each selected Playlist indicating that it will be deleted. Press the SELECT key again to remove the checkmark.**
5. **When you have selected all of the Playlists you want to delete, select the delete button to permanently remove and delete the checked Playlists.**
6. **You can not delete the System Groups (All, CDs, Internal, or Playlists).**

SETTING USER PREFERENCES

User preferences are available to specify global configuration options and preferred system settings. Press the SETUP key on the remote control to display the Setup Menu. Use the navigation keys on the remote control (up, down, left, and right) to highlight and select any menu item.

SETTING THE SCREEN SAVER PREFERENCES

Screen Savers are provided for each source mode. Screen Savers provide two important functions, to prevent a static image from being displayed on the video output device for extended periods of time and to provide useful information to the user when activated.

Follow these steps to set your screen saver preferences:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the GENERAL Menu**
3. **Select the SCREEN SAVER Menu**
4. **Select your Screen Saver Preferences**

Activation Idle Time

You can specify the amount of idle time that FireBall will wait before activating the screen saver from 1 to 60 minutes.

Warning: Some televisions and plasma monitors are more susceptible to screen burn-in than others, therefore, we recommend using a low activation time (like 1 minute) to reduce the risk of burn-in.

Other Modes

Select either the Normal, or Product Demo. The Normal mode displays the current title or station information while the Product Demonstration mode is intended for retail product demos during idle time.

Retail Demo Mode

FireBall has a Retail Demo Mode for use in retail display environments. The Retail Demo Mode (RDM) is a special screen saver that is activated during idle time. The RDM continuously displays key features and benefits of the FireBall product on the attached TV. Pressing any button on the remote will temporarily disable the RDM and allow the user to demo the product. After the specified idle time, the RDM will reactivate as the screensaver.

Follow these steps to enable the Retail Demo Mode in your FireBall display model:

1. **Follow the Quick Start instructions to connect and register your demo FireBall.**
2. **When your FireBall is configured and you see the Music Guide, press the SETUP key on the remote.**
3. **Select the General menu.**
4. **Select the Screen Saver menu.**
5. **Select the Demo Mode option and the number of minutes to wait before displaying the Demo Mode screen saver.**
6. **Select the Save button.**

- The RDM will be activated whenever the FireBall is idle for the specified period of time.
- Do not set the idle time too high as the possibility of screen burn is increased with certain types of displays, particularly “Plasma” type displays.

SETTING YOUR TIME ZONE

Specify which US time zone your FireBall is located in.

Follow these steps to set your Time Zone:

1. Press the SETUP key on the remote to display the Setup menu.
2. Select the GENERAL Menu
3. Select the TIME ZONE Menu
4. Select your select your Time Zone.

CUSTOMIZABLE USER INTERFACE

In addition to the Escient Classic user interface theme, the FireBall allows you to select a custom theme and select your own background images for each Guide, Player, Options, Setup, and Message screens. You can import your own background images into the Backgrounds shared directory using Windows Networking. Images should be 720x480 and saved in either jpg, gif, or png formats.

Follow these steps to select a custom background on your FireBall:

1. **Press the SETUP key on the remote.**
2. **Select the General menu.**
3. **Select the User Interface Backgrounds menu.**
4. **Select the screen you want to set the background for (Music Guide, Music Player, Music Option, etc….**
5. **Scroll down the list and highlight an image. A preview will be displayed to the right of the list.**
6. **Press the Select key on the remote to select the desired image.**
7. **Repeat steps 6 – 8 for each screen you want to customize.**
8. **Select the Save button when you are done to return to the Setup menu.**

Note: Some backgrounds look better than others. In general, backgrounds with darker colors and few small details are better.

ENABLING PASSWORD PROTECTION

Optional Password Protection enables you to limit user access to the Setup Menus. This is useful to lockout the ability to change the global user settings and preferences.

Setting a System Password – Follow these steps to setup a new system password:

1. **Using the remote control, enter a 4 to 8 digit code into the password field.**
2. **Press the SELECT key to highlight the VERIFY field.**
3. **Re-enter the same password for verification.**
4. **Press the SELECT key to highlight the SAVE button.**
5. **Press SELECT again to save your password and enable Password Protection on the Setup Menus.**

- You must exit Setup and re-enter setup to activate the password protection.
- If a user password is specified, you will be prompted for your password whenever you press the Setup key on the remote.
- If the password entered matches the stored password, full access is granted to the user until the next power off cycle.
- If the password does not match, the user will be asked 2 more times to enter the correct password. If after the third try the password still does not match, the system will not allow the user access to the Setup menus.
- If the user does not specify a System Password, access to the Setup menus will be allowed whenever you press the Setup key.

Removing a System Password – Follow these steps to remove the system password:

1. **Press the SETUP key and enter your existing system password.**
2. **Highlight the CLEAR button on screen and press the SELECT key on your remote.**
3. **The password and verify fields will be cleared.**
4. **Highlight the SAVE button and press SELECT.**

You will now be able to enter Setup without entering a password.

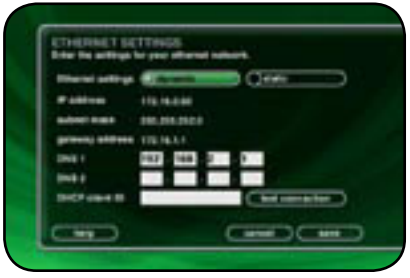
MOVIE RATINGS

Movie Ratings are used to prohibit the display of certain movies in the Movies Guide. This feature is used in conjunction with the Password Protection feature. You must have Password Protection enabled and a password entered for the Movie Ratings to be in effect. See the section above for more information on Enabling Password Protection.

Select the highest movie ration you want to display in the Movies Guide without entering a password. For example, if you select **PG-13** all movies with an MPAA rating above PG-13 (R, NC-17, and X) **will not be shown** in the Movies Guide when Password Protection is enabled.

Follow these steps to select a Movie Rating:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the GENERAL Menu.**
3. **Select the MOVIE RATINGS Menu.**
4. **Select the highest movie rating you want to display in the Movies Guide without entering a password.**
5. **Select the SAVE button to save your changes and return to the previous screen.**



NETWORK ETHERNET SETTINGS

Ethernet is the preferred networking choice which provides you with the best network performance and allows your FireBall to act as a "server" to deliver your music collection throughout your home network using the optional FireBall Music Players.

Ethernet networks require that you configure each device on the network with a valid "address". These addresses are usually configured automatically by your network hardware. If your PC is setup using Dynamic or "DHCP" addressing, you should most likely use the same for your FireBall.

Connect your FireBall to your Ethernet network using the included Ethernet cable and then follow these steps to specify your Ethernet settings:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK Menu**
3. **Select the ETHERNET SETTINGS Menu**
4. **Select Dynamic for automatic address configuration or Static if you want to manually enter your TCP/IP address information.**

If you select Static TCP/IP addressing, you will need to obtain a valid IP address, subnet mask, DNS server, and gateway addresses from your network administrator.

Testing the Your Connection

It is a good idea to verify that your selected network connection is functioning properly before exiting the Network Connections screen.

Follow these steps to test your selected network connection:

1. **Select the TEST CONNECTION button on the Network Connections screen.**
2. **Wait for the tests to complete. A check mark next to each test indicates that it passed while an "X" indicates that the test failed.**
3. **Select the RETURN button to return to the previous screen.**

If one or more connection tests receive an X, make sure your cables are properly connected and you have properly setup for Ethernet Settings or Dialup Modem Settings.

SETTING THE FIREBALL SERVER SETTINGS

FireBall's server allows you to control it remotely using a web browser on your PC. The FireBall Name allows you to easily locate and connect to your FireBall by name.

Follow these steps to enter a name for your FireBall:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK menu.**
3. **Select the FIREBALL SERVER SETTINGS menu.**
4. **Enter a name for your FireBall using the remote control or wireless keyboard. For example: "Living Room" or "Home Theater" might be a name which helps identify which FireBall you want to connect to.**

Follow these steps to enter a password to be used when connecting to your FireBall from a web browser:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **select the NETWORK menu.**
3. **Select the FIREBALL SERVER SETTINGS menu.**
4. **Enter a password to be used from your PC when connecting from your web browser.**

Note: There is no User Name when connecting from a web browser.

VIDEO OUTPUT PREFERENCES

Video Format

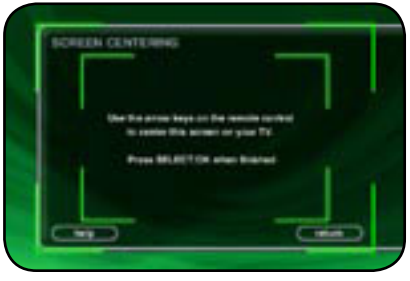
Allows you to select 4:3 or 16:9 aspect ratios on your TV screen.

Follow these steps to center the FireBall screen:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the VIDEO FORMAT menu.**
4. **Using the Up and Down keys on the remote, select your desired aspect ratio.**
5. **Press the SELECT key on the remote to highlight the SAVE button.**
6. **Press SELECT again to save the current desired format.**

▾ 4:3 User Interface

▾ 16:9 User Interface



Centering the FireBall Screen

Allows you to center the FireBall user interface horizontally on your TV screen.

Follow these steps to center the FireBall screen:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the SCREEN CENTERING menu.**
4. **Using the Left and Right keys on the remote, adjust the screen so that it appears horizontally centered on your TV.**
5. **Press the SELECT key on the remote to highlight the SAVE button.**
6. **Press SELECT again to save the current position.**

Adjusting your TV's Brightness

Follow these steps to adjust the brightness on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the BRIGHTNESS menu.**
4. **Turn your TV's brightness control all the way up then lower it to the point where the vertical black bar on the left just disappears. This will get your brightness control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**.

Adjusting your TV's Contrast

The Contrast or Picture Adjustment control allows you to optimize the contrast (which is sometimes called Picture) of their TV, using the TV's Contrast or Picture controls. This setting helps reduce video "blooming" and create a clearer, more readable user interface.

Follow these steps to adjust the contrast on your TV:

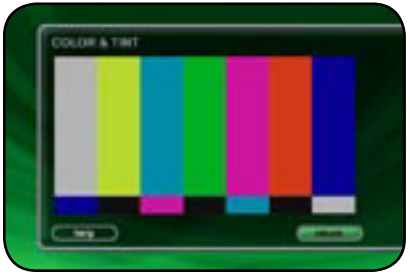
1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the CONTRAST menu.**
4. **Turn your TV's Contrast or Picture control all the way up, then lower it to the point where the vertical line appears straight and does not bend. It may not be possible to make it completely straight on some TV sets. This will get your Contrast control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**

Adjusting your TV's Sharpness

The Sharpness adjustment allows you the set the Sharpness or Detail control of their TV so that onscreen text is as readable as possible. Proper adjustment of the Sharpness control (sometimes called the Detail control) on your TV, allows you to see video and on screen menus more accurately.

Follow these steps to adjust the sharpness on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the SHARPNESS menu.**
4. **Turn your TV's Sharpness or Detail control up and down until the text on the screen is as readable as possible. Be sure to adjust your Brightness and Contrast before adjusting the Sharpness control. This will get your Sharpness control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**



Adjusting your TV's Color and Tint

Color Bars are used to test the TV monitor's ability to reproduce the proper color values.

Follow these steps to adjust the Color and Tint on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the COLOR BARS menu.**
4. **Turn your TV's Color and Tint controls up and down until the color bars are at the point where they are not appearing to bleed together and the colors do not appear to be too bright. This will get your Color and Tint controls as close as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**

EXTERNAL CONTROL

SURROUND MODE SETTINGS

FireBall will automatically switch the video and audio output from the DVD changer when you play a movie title. This allows you to use one input on your a/v receiver or TV for the FireBall and the DVD changer. You may use either composite, S-video, or component video connections and analog, digital, or 5.1 analog audio connections from the changer to the FireBall. Use the same types of connections from FireBall to your A/V receiver or TV monitor.

FireBall is equipped with the following video input and output ports:

- 1 composite video output
- 1 s-video output
- 1 component video output
- 1 composite video input
- 1 s-video input
- 1 component video input

Follow these steps to set the Surround Mode Settings:

1. Press the SETUP key on the remote control.
2. Select the External Control Menu.
3. Select the Surround Mode Settings.
5. Set the desired media to the desired receiver mode.
6. Highlight the SAVE button and press SELECT to save the settings.

Note: FireBall does not alter the video or audio signal quality in any way. All video and audio signals are switched and then passed through FireBall to your home theater system. Because video and audio signals are switched, you must use matching cable types between your changers, FireBall, and your home theater.

Note: The Surround Mode Settings allows you to automatically select the deired Surround Mode on your compatible Denon or Marantz A/V receiver for each type of media FireBall can play.

IR REMOTE CONTROL

FireBall is preset from the factory to operate from the FB1 source button, however, the FireBall can be configured to use any one of the four source buttons using the on screen Setup menus. This is useful when there are multiple FireBalls installed at the same location, so all FireBalls don't respond to the same IR commands. Use the following steps to change which source button **(FB1, FB2, FB3, or FB4)** each FireBall will listen for commands from:

Follow these steps to configure your FireBall to be controlled by any of the four IR code banks:

1. **Press the Setup key on the remote to display the FireBall setup menu.**
2. **Select the External Control menu item.**
3. **Select the IR Remote Control menu item.**
4. **Select which source button to use to control this FireBall.**
5. **Press the new source button on your remote to reconfigure the remote and confirm the change by selecting the OK button on screen.**

Repeat these steps for each FireBall in your system, selecting a different FB button for each.

DIRECT ACCESS CODES

Direct Access Codes are used in conjunction with the MACRO key on the remote control to provide an IR code sequence to access just about any media in your FireBall server. This is useful for programming third-party external control systems and programmable IR remote controls such as the Marantz RC9500.

The Direct Access Codes are available for all music titles, playlists, groups, and radio stations.

Follow these steps to view the direct IR codes for your FireBall content:

1. **Press the Setup key on the remote to display the FireBall setup menu.**
2. **Select the External Control menu item.**
3. **Select the Direct Access Codes menu item.**
4. **Select which codes you want to view:**
    a. **Music Titles**
    b. **Music Discs**
    c. **Music Playlists**
    d. **Music Groups**
    e. **Radio Stations**

Note: You can make a print out of this information by using the FireBall Web Server Interface. Connect to your FireBall's IP address and look under Setup->Direct Access Codes.

The following table is used to determine the button sequence for direct access code sequences from the Escient IR remote and IR keyboard.

Direct Media Access IR Remote Definitions

Function	Multi-Key Combinations
Direct Play Mode	Macro, 1, [play mode number], Enter
Direct Disc	Macro, 2, [changer number], Macro, [disc number], Enter
Direct Artist-Title	Macro, 3, [artist-title access number], Enter
Direct Group	Macro, 4, [group access number], Enter
Direct Movie Title	Macro, 6, [movie title access number], Enter
Direct Playlist	Macro, 7, [playlist access number], Enter
Direct Track	Macro, 8, [track number], Enter
Direct iRadio Station	Macro, 9, [iRadio access number], Enter

The following table is used to determine the button sequence for direct access code sequences from the Escient IR remote and IR keyboard.

Direct Media Access IR Remote Definitions

Function	Multi-Key Combinations
Direct Play Mode	Macro, M, [play mode number], Enterr
Direct Artist-Title	Macro, A, [artist-title access number], Enter
Direct Movie Title	Macro, V, [movie title access number], Enter
Direct iRadio Station	Macro, R, [iRadio access number], Enter
Direct Disc	Macro, C, [changer number], D, [disc number], Enter
Direct Track	Macro, T, [track number], Enter
Direct Playlist	Macro, P, [playlist access number], Enter
Direct Group	Macro, G, [group access number], Enter

Example 1: Use the keyboard to play disc 14 in changer 1.
Press: MACRO, C, 1, D, 1, 4, ENTER

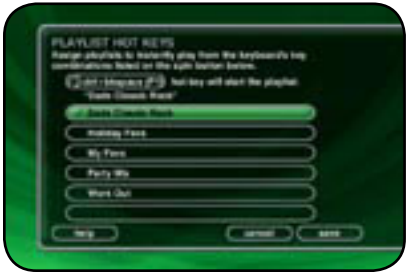
Example 2: Use the keyboard to play playlist number 5
Press: MACRO, P, 5, ENTER

Example 3: Use the remote to play disc 14 in changer 1.
Press: MACRO, 2, 1, MACRO, 1, 4, ENTER

Example 4: Use the remote to play playlist number 5.
Press: MACRO, 7, 5, ENTER

Example 5: Use the remote to play the movie number 123.
Press: MACRO, 6, 1, 2, 3, ENTER

Note: If you do a lot of editing to your music and movie collection, these numbers may change. If you experience trouble with the Macro key feature, please check that the direct IR numbers are still correct under SETUP.



PLAYLIST HOT KEYS

Playlist Hot Keys provides a Keyboard Macro sequence to directly access any five Playlists in your Music collection from any of these five keyboard combinations:

- Control + Backspace
- Control + Insert
- Control + Delete
- Control + Top
- Control + Bottom

Follow these steps to assign a Playlist to one of the five available keyboard combinations:

1. **Press the Setup key on the remote to display the FireBall setup menu.**
2. **Select the External Control menu item.**
3. **Select the Playlist Hot Keys menu item.**
4. **Select one of the five keyboard combinations from the spin control using the SELECT button on the remote.**
5. **Navigate down to the list and select which Playlist to assign to the current keyboard combination.**
6. **Repeat steps 4 and 5 for each keyboard combination.**

Note: If there is nothing in the Playlist Hot Keys list, you must first create Playlists on your FireBall.

BUTTON OVERLAY

You may choose to manually enable or disable the Third Party Overlay. The Touch Panel Overlay is used for third-party control systems such as the Elan VIA! and Xatech SPLCD.

Follow these steps to enable/disable the button overlay:

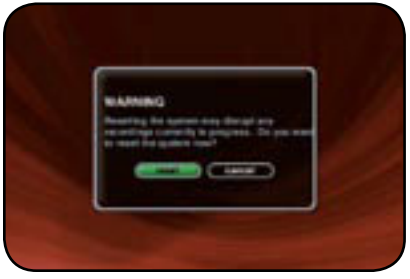
1. **Press the Setup key on the remote to display the FireBall setup menu.**
2. **Select the External Control menu item.**
3. **Select the Button Overlay menu item.**
4. **Navigate up or down and press SELECT to enable or disable.**
5. **Navigate to the save button and press SELECT to save and return to the previous menu.**

GETTING INFORMATION ABOUT YOUR FIREBALL

Information about your FireBall hardware and software is available under the Utilities menu. This information is useful for troubleshooting any problems you may encounter with your network connection or verifying the current software versions.

Follow these steps to view the FireBall system information:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the SYSTEM INFORMATION menu.**



RESTARTING THE SYSTEM

There are two ways of manually performing a full restart or reboot of the FireBall system, one using the front panel power button and the other using the Restart System menu.

Follow these steps to restart the system using the front panel Power Button:

1. **Press and hold the power button for 4 seconds.**
2. **When the LED on the front panel begins to flash, release the power button.**
3. **When the LED on the front panel glows solid RED (standby mode), FireBall is ready to use.**
4. **Press and release the Power button to turn on FireBall.**

Follow these steps to restart the system using Utilities menu:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the RESTART SYSTEM menu.**
4. **Confirm that you want to restart the system and select the RESTART button.**
5. **When the LED on the front panel glows solid RED (standby mode), FireBall is ready to use.**
6. **Press and release the Power button to turn on FireBall.**

UPDATING THE SOFTWARE

FireBall will automatically check the Escient server once a week for any FireBall software updates, and automatically install them. You can also manually check for a software update.

Follow these steps to manually update the software:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the UPDATE SOFTWARE menu.**
4. **Select the Check for Update button.**
5. **Confirm that you want to update the current software.**
6. **FireBall will connect to Escient and compare the current software version with the latest release. If a newer version of the FireBall software is available, it will be downloaded and installed.**

CONTROLLING FIREBALL FROM A WEB BROWSER

FireBall contains a built-in web server which means you can connect to your FireBall and remotely control it using a standard web browser from a PC, Mac, or PDA over your home network.

SETTING UP THE FIREBALL WEB SERVER

Your FireBall acts as a web server on your network allowing you to connect and control the FireBall using your PC or Mac computer. This web server is automatically configured and started each time the FireBall is plugged in. You connect to the server from your PC or Mac using Internet Explorer or Safari (Mac OSX) using TCP/IP addressing over your home network. You can use a wireless or wired Ethernet network, as long as you have a DHCP router or if you have assigned static IP addresses. Please contact your Escient dealer if you need assistance with setup a home network.

The FireBall Server Name entered on the Server Settings Menu in the SETUP/ NETWORK menus is used for the web address to access the FireBall web interface.

USING THE WEB USER INTERFACE

Using the Web User Interface displayed in your Web Browser, you can control almost every aspect of your FireBall. The Web User Interface is setup very similarly to FireBall's own TV user interface allowing access to each source (Music, Movies, Radio) as well as all major features such as Setup, Guide/ Player, Options and Edit Screens.

Use your keyboard and mouse to navigate the web interface instead of the IR remote control. Access to all of the major functions is provided by the buttons along the left and right side of the web interface. These buttons duplicate those found on the remote control.

▲ **Fixed 800x600 Web Interface**

Now Playing
Gentleman's Agreement
Classic
1947 - Not Rated - 118
Director Elia Kazan and producer Darryl F. Zanuck caused a sensation with "the most spellbinding story ever put on

◀ **Resizable PDA Web Interface**

SERVERS

A FireBall Server is a Fireball media management system that is capable of "serving" media to other FireBalls over a network. The FireBall is a considered a "server" product.

CLIENTS

A FireBall Client is a FireBall that can play media from a FireBall Server over a network. Currently there are three different FireBall products that can play media from FireBall servers:

- FireBall MP-150
- FireBall DVDM-100
- FireBall SE-D1
- Client-Server networking is limited to the same local subnet. You can not stream over the Internet unless you have a VPN setup between the two FireBalls.
- Only MP3 and FLAC audio files can be streamed to clients. You can't stream CDs from the internal drive or from external changers.
- Playlists that contain only MP3s/FLAC files will be available on the clients.
- Playlists that contain MP3s/FLAC files and non-streamable tracks will NOT appear on the clients.
- You may have an unlimited number of clients on the network, but you can only stream to 4 clients simultaneously.
- Movies can not be streamed.
- Internet Radio can not be streamed (but it is available on most standalone products).

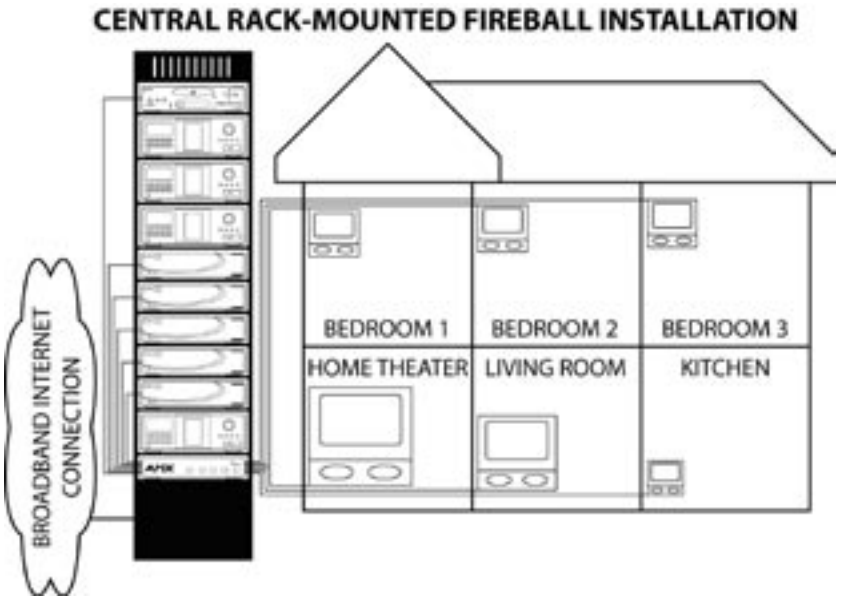
LOCATING THE FIREBALL CLIENTS AND SERVERS

Central

If you locate your FireBall clients and servers in a central location such as an equipment or utility room, you will need to use a third party audio/ video distribution system to deliver sound and picture to each room. This type of installation allows great flexibility for delivering music, movie, and Internet radio to every room of the home or office and provides the professional installer with tools for almost any installation.

FireBall is built from the ground up with many features that allow you to centrally locate and remotely control your FireBall clients and servers, such as:

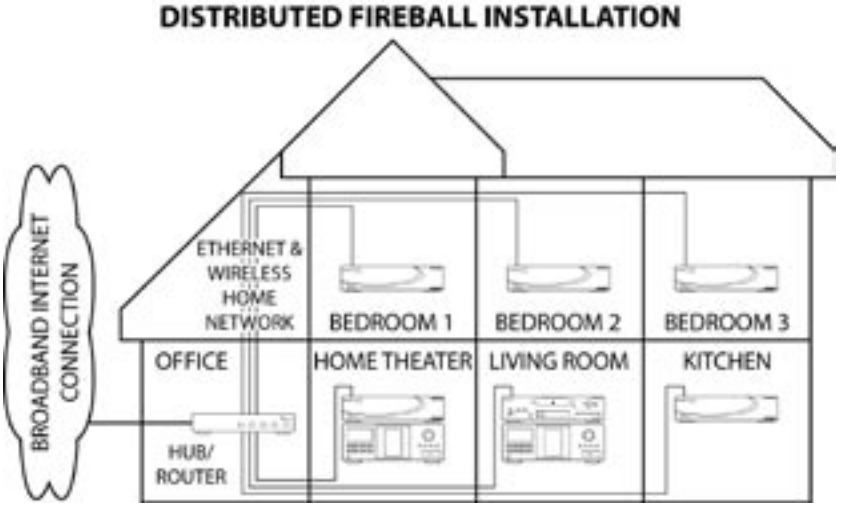
- Direct IR input
- Two way serial control over RS-232
- Two way serial control over ethernet
- Wireless IR remote and Keyboard options
- Support for 4 different IR banks (4 IR zones)
- Templates for integration into many third party wired and wireless IR distribution systems
- Philips and Marantz Pronto remote control templates



Distributed

A distributed FireBall installation means that your FireBall Servers and Clients are physically distributed or located in different rooms. Distributed FireBalls communicate over a wired or wireless network to share access to your media.

The biggest advantage of a distributed client-server system over a central system is that everything you need is built into FireBall. Networking, zoned IR, independent high-quality audio and video feeds, as well as support for an unlimited number of rooms or zones using standard ethernet wiring. (Note: only 4 clients can stream from the same server at one time).



CONFIGURING A FIREBALL SERVER

Every FireBall capable of server functions is automatically enabled to serve MP3 and FLAC audio whenever it is plugged in and properly configured for your network.

It is recommended that you give each of your FireBall servers a unique name that describes it's location using the **SERVER SETTINGS** screen which can be accessed from S**etup/Network /Server Settings**. Names like "LivingRoom", "HomeTheater", "MyMusicServer" are all good examples.

Note: Do not use spaces in the FireBall Server Name.

Optionally, you can assign a password for web access to the FireBall. This password is independent from the Parental Controls password and is used to limit access to FireBall's web server from any standard web browser on your network. If a password is entered here, the user will be asked to enter it when connecting to the FireBall from their PC. This password is provided to protect access to your FireBall through the standard HTTP port 80 on your subnet.

CONFIGURING A FIREBALL CLIENT

Networking

Each FireBall client must be on the same network as the server. This document will assume that you have properly connected your FireBall client to the same network as your FireBall server. Please refer to the HomeNetworkingPrimer support document on the Escient web site for more information about home networking.

Server Selection

FireBall clients will automatically select the first server it sees on the network and connect to it upon startup.

If you have more than one server on your network, you can manually select a different server using the **Server Connection** screen which can be accessed from **Setup/Internet Configuration/Server Connection**.

The Server Connection screen displays a list of FireBall Servers found on your network by their default or user defined "FireBall Name".

Once you select a server and save your selection, press MUSIC to view the Music Guide on the client. In a few moments, the Music Guide will display the contents of the FireBall server. You can then select and play anything from the Music Guide just as you would from a single FireBall.

ESCIENT TECHNICAL SUPPORT

Contact your dealer or Escient's Customer Support group.

Hours: Monday - Friday 9:00am - 7pm EST
Phone: 800-372-4368 Press "2" for Sales, or "3" for Support
Fax: 317-616-6790
Internet: www.escient.com
Email: support@escient.com

Please have the following information ready for the Escient Customer Support technician:

- Product Serial Number
- Model Number
- Date of Registration or Purchase
- Place of Purchase

NETWORK PROBLEMS

If you experience problems registering a FireBall or connecting to the Internet to lookup disc information, try these possible fixes before calling Escient Tech Support:

- Make sure that your FireBall is properly connected to your home network and that all cables are in working order.
- FireBall communicates using TCP/IP and UDP over Ethernet networks using ports 80, 443, and 1755. If you have a router installed on your network, make sure that these ports are open for TCP and UDP.
- If Dynamic TCP/IP addressing fails, check your router to make sure that it is configured to assign dynamic IP addresses via DHCP and try rebooting your router.
- If DHCP addressing still isn't working, try using static IP addresses. The Internet Assigned Numbers Authority (IANA) has reserved the following three blocks of the IP address space for private networks: 10.0.0.0 - 10.255.255.255, 172.16.0.0 - 172.31.255.255, and 192.168.0.0 - 192.168.255.255. Note that the first block is nothing but a single class A network number, while the second block is a set of 16 contiguous class B network numbers, and the third block is a set of 255 contiguous class C network numbers. The complete RFC 1918 can be found via FTP on http://nic.ddn.mil
- Crestron, AMX, or other third party controllers capable of controlling the FireBall over Ethernet use port 251. Make sure your router has port 251 open if you plan on using two-way control over Ethernet.

SOFTWARE UPDATE PROBLEMS

Manual Software Update Checks

Software Updates are automatically checked once a week starting on the day of the week your FireBall was first registered. You can manually check for a software update by accessing the Software Update menu found under the Setup/Utilities Menu.

RECORDING PROBLEMS

Audio vs. Data CDs

FireBall requires Royalty paid blank media when recording audio CDs. Blank CDs marked with "Data" can not be used when creating Red Book audio CDs. You must purchase and use blank media marked as "Audio" or Music" CDs.

ADDITIONAL INFORMATION

SPECIFICATIONS

Specifications are subject to change without notice. Please check the Escient web site for any changes to the specifications.

Video Specifications

- NTSC
- 10 bit Video DACs
- Frequency Response:
- Composite: -2 dB @ 5MHz
- S-Video: -2 dB @ 5MHz
- SNR: 50 dB
- Crosstalk: 50 dB
- Input Impedance: 75Ohm
- Output Impedance: 75Ohm

Audio Specifications

- Frequency Response: 2 – 20,000 Hz, ±1 dB
- THD+N (playback) < -80 dB FS A (< 0.01%)
- A_D-DSP-D-A Dynamic Range: > 96 dB FS A @ 1kHz
- Channel Separation: >95 dB
- Full Scale Line Output: >2 Vrms, 50 k ohms
- S/PDIF Output: 0.4Vpp to 0.6Vpp, <0.05Vdc (75ohm terminated)
- Power Requirements: AC 90-132 VAC, 50-60 Hz
- Power Consumption: < 60 watts

Physical Specifications

Width: ~ 17 3/8”
Height: ~ 4 5/8” w/ feet; ~ 4” w/o feet
Depth: ~ 11 7/8”; Installed 14 3/8”

3rd Party Certifcations

- FCC: US Part 15, Class B
- NTSC Video Output: NTSC RS-170A
- cETL Listing
- Conforms to: UL STD 6500-2000
- Certified to: CAN/CSA STD E60065-00
- CE

FCC Part 15, Subpart B

Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.
- Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

GRACENOTE® END-USER LICENSE AGREEMENT
USE OF THIS PRODUCT IMPLIES ACCEPTANCE OF THE TERMS BELOW.

This product contains technology and data from Gracenote of Emeryville, California ("Gracenote"). The technology from Gracenote (the "Gracenote Embedded Software") enables this product to do disc identification and obtain music-related information, including name, artist, track, and title information ("Gracenote Data"), which is included on the Gracenote Database (the "Gracenote Database").

You agree that you will use Gracenote Data, the Gracenote Database, and Embedded Software for your own personal non-commercial use only. You agree that you will access Gracenote Data only by means of the standard end user functions and features of this product. You agree not to assign, copy, transfer or transmit the Embedded Software or any Gracenote Data to any third party. YOU AGREE NOT TO USE OR EXPLOIT GRACENOTE DATA, THE GRACENOTE DATABASE, OR GRACENOTE COMPONENT, EXCEPT AS EXPRESSLY PERMITTED HEREIN.

You agree that your non-exclusive license to use the Gracenote Data, the Gracenote Database, and Embedded Software will terminate if you violate these restrictions. If your license terminates, you agree to cease any and all use of the Gracenote Data, the Gracenote Database, and Gracenote Embedded Software. Gracenote reserves all rights in the Gracenote Data, Gracenote Database, and Gracenote Embedded Software, including all ownership rights. You agree that Gracenote may enforce its rights under this Agreement against you directly in its own name.

The Embedded Software and each item of Gracenote Data are licensed to you "AS IS." Gracenote makes no representations or warranties, express or implied, regarding the accuracy of any Gracenote Data. Gracenote reserves the right to delete data or to change data categories in any Data updates and for any cause that Gracenote deems sufficient. No warranty is made that the Embedded Software is error-free or that functioning of the Embedded Software will be uninterrupted. Gracenote is not obligated to provide you with any new enhanced or additional data types or categories that Gracenote may choose to provide in the future.

GRACENOTE DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT. GRACENOTE DOES NOT WARRANT THE RESULTS THAT WILL BE OBTAINED BY YOUR USE OF THE GRACENOTE COMPONENT OR ANY GRACENOTE SERVER. IN NO CASE WILL GRACENOTE BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR FOR ANY LOST PROFITS OR LOST REVENUES.

ESCIENT

ESCIENT®

PRODUCTS FOR THE HUMAN INTERFACE.

FIREBALL REMOTE CONTROL GUIDE

Programming the (silver) Escient FireBall Taurus Wireless IR Remote Control

6640 Intech Blvd. Suite 250 Indianapolis, IN 46278 317.616.6789 www.escient.com

FireBall Remote Control

FireBall server products include an infrared universal remote control designed to operate the FireBall from up to 30 feet. The remote can be programmed to operate up to four different FireBall products in addition to 4 other home theater devices.

The 4 source buttons on the FireBall remote control labeled FB1, FB2, FB3, and FB4 can only be programmed to operate the FireBall products. The 4 source buttons on the remote labeled TV, CBL, RCV, and DVD can be programmed to operate other devices.

Controlling Multiple FireBalls with 1 Remote

Every FireBall is preset from the factory to operate from the FB1 source button, however, the FireBall can be configured to use any one of the four source buttons using the on screen Setup menus. This is useful when there are multiple FireBalls installed at the same location, so all FireBalls don't respond to the same IR commands. Use the following steps to change which source button (FB1, FB2, FB3, or FB4) each FireBall will listen for commands from:

- Press the Setup key on the remote to display the FireBall setup menu.
- Highlight and Select the Utilities menu item.
- Highlight and Select the IR Remote Control menu item.
- Highlight and Select which source button to use to control this FireBall.
- Press the new source button on your remote to reconfigure the remote and confirm the change by selecting the OK button on screen.

Repeat these steps for each FireBall in your system, selecting a different FB button for each.

IR REMOTE CONTROL
The Fireball remote can control multiple source components including FireBalls, TV, CBL, RCV and DVD. You can assign the four FireBall source buttons on the remote control to control THIS FireBall. This feature is useful if you have more than one FireBall in the same room so that all FireBalls do not respond to the same IR commands.
FireBall 1 (FB1)
FireBall 2 (FB2)
FireBall 3 (FB3)
FireBall 4 (FB4)
help
cancel
save

Resetting the FB Source Buttons

The FB1, FB2, FB3, and FB4 source buttons are preprogrammed at the factory with the correct codes to control four FireBalls. If you changed these buttons to control other devices, you will have to reset the FB Source buttons back to the original codes in order to control FireBalls again. Use the following steps to program these buttons back to their factory states:

- Press the FB1, FB2, FB3, or FB4 source button to be re-programmed.
- Press & Hold the "Code Set" button on the remote until the LED flashes twice.
- Enter "987" using the remote's numeric keypad. The LED should again flash twice.

- Enter the factory reset code which corresponds to the FB button being reset:
  - "0082" for FB1
  - "0083" for FB2
  - "0084" for FB3
  - "0085" for FB4
- The LED will again flash twice indicating the programming was successful.

Repeat these steps for each FireBall in your system, selecting a different FB button for each.

Programming the Universal Source Buttons

Use the following steps to program the AUX, CBL, DVD, TV, and RCV source buttons to control other devices. The following table indicates which device types can be programmed on which source buttons:

Source Button	Device Assignment
TV	TV
CBL	Cable, Video Accessories, Satellite, DSS
RCV	Amplifier, Tuner, Phono, Misc. Audio, CD, Home Automation, MD
DVD	VCR, Audio Cassette, DVD, LDP, DAT, PVR

- Locate the 4 digit device code for the device you want to control in Appendix A.
- Press the source button to be programmed.
- Press & Hold the "Code Set" button on the remote until the LED flashes twice.
- Enter the 4 digit code using the remote's numeric keypad. The LED will flash twice indicating the code was accepted.

Note: If the LED does a single long flash then the entered code was not valid for that source button.

See Appendix B for details and instructions for accessing the other various functions available on the remote control:

Using the Macro key

The Macro key is used to enter a command sequence of two or more IR commands. Macros are used to directly access any title, group, or station from the wireless keyboard, remote control, or an external IR control system.

Direct Media Access IR Keyboard Definitions

Function	Multi-Key Combinations
Direct Play Mode	Macro, M, [play mode number], Enter
Direct Artist-Title	Macro, A, [artist-title access number], Enter
Direct Movie Title	Macro, V, [movie title access number], Enter
Direct iRadio Station	Macro, R, [iRadio access number], Enter
Direct Disc	Macro, C, [changer number], D, [disc number], Enter
Direct Track	Macro, T, [track number], Enter
Direct Playlist	Macro, P, [playlist access number], Enter
Direct Group	Macro, G, [group access number], Enter

Direct Media Access IR Remote Definitions

Function	Multi-Key Combinations
Direct Play Mode	Macro, 1, [play mode number], Enter
Direct Disc	Macro, 2, [changer number], Macro, [disc number], Enter
Direct Artist-Title	Macro, 3, [artist-title access number], Enter
Direct Group	Macro, 4, [group access number], Enter
Direct Movie Title	Macro, 6, [movie title access number], Enter
Direct Playlist	Macro, 7, [playlist access number], Enter
Direct Track	Macro, 8, [track number], Enter
Direct iRadio Station	Macro, 9, [iRadio access number], Enter

Next and Previous IR Definitions

Function	Multi-Key Combinations
Next Artist-Title	Next
Prev Artist-Title	Prev
Next Track	>>
Prev Artist-Title	<<
Next Group	CTRL + Next or Macro, Next
Previous Group	CTRL + Prev or Macro, Prev

The direct access numbers are available for all music and movie titles, playlists, groups, and radio stations. To view these numbers, press SETUP then select the UTILITIES menu and then VIEW DIRECT IR NUMBERS.

Note: If you do a lot of editing to your music and movie collection, these numbers may change. If you experience trouble with the Macro key feature, please check that the direct IR numbers are still correct under SETUP.

Example 1: Use the keyboard to play disc 14 in changer 1.
Press: MACRO, C, 1, D, 1, 4, ENTER

Example 2: Use the keyboard to play playlist number 5
Press: MACRO, P, 5, ENTER

Example 3: Use the remote to play disc 14 in changer 1.
Press: MACRO, 2, 1, MACRO, 1, 4, ENTER

Example 4: Use the remote to play playlist number 5.
Press: MACRO, 7, 5, ENTER

Example 5: Use the remote to play the movie number 123.
Press: MACRO, 6, 1, 2, 3, ENTER

Other Discrete IR Commands

Discrete IR commands are available by pressing a combination or series of keys. The following table defines which direct IR codes are available and the corresponding key combination.

Function	Single Key Combination	Multi-Key Sequence
Power On	SHIFT + Music	Macro, Music
Power Off	SHIFT + iRadio	Macro, iRadio
Play Mode: Normal	SHIFT + Movies	Macro, Movies
Play Mode: Repeat Track	SHIFT + Menu	Macro, Menu
Play Mode: Repeat Title	SHIFT + Subtitle	Macro, Subtitle
Play Mode: Repeat Group	SHIFT + Audio	Macro, Audio
Play Mode: Random Title	SHIFT + Repeat	Macro, Repeat
Play Mode: Random Group	SHIFT + Guide	Macro, Guide
Guide	SHIFT + Mode	Macro, Mode
Player	SHIFT + Info	Macro, Info
Music View: Cover	SHIFT + Option	Macro, Option
Music View: Artist	SHIFT + Next	Macro, Play Favorites
Music View: Title	SHIFT + Setup	Macro, Setup
Music View: Song	SHIFT + Random	Macro, Random
Movie View: Title	SHIFT + Setup	Macro, Setup
Movie View: Cover	SHIFT + Option	Macro, Option

Note: The SHIFT + [key] indicates that both the shift key and the other key are pressed simultaneously. The Macro, [key] means to press and release the Macro key first and then press and release the other key

See Appendix B for details and instructions for accessing the other various functions available on the remote control:

APPENDIX A – Universal Device Codes

Setup Code For TVs (T)

888	10264
A-Mark	10003
Abex	10032
Addison	11150, 10653, 10092
Admiral	10093, 10463
Advent	10761, 10817, 10815, 11933, 10783, 10842
Adventura	10046
Aiko	10092
Aiwa	11914, 11910
Akai	10812, 10702, 10030, 10672, 11903, 10264
Alaron	10179
Albatron	10843, 10700
Ambassador	10177
America Action	10180
Ampro	10751
Anam	10250, 10180, 10003, 10700, 10161, 10628
Anam National	10250, 10161, 10055, 10650
Anhua	10051
AOC	10451, 10093, 10180, 10060, 10030, 10178, 10019, 10185, 11150, 10018, 10052, 10474, 10003, 10092, 10179
Aolinpike	10264
Apex Digital	10748, 10765, 10767, 11943, 10879
Archer	10003
Audiovox	10451, 10180, 10875, 11952, 10802, 11951, 10092, 10623, 11937, 10003
Axion	11937
Baihe	10264
Baile	10001, 10391
Baohuashi	10264
Baosheng	10817
Beijing	10812, 10391, 10264, 10817, 10001
Belcor	10019
Bell & Howell	10154, 10016
BenQ	11032
Bradford	10180
Brockwood	10019
Broksonic	10236, 10463, 11911, 11938, 10003, 11905, 11935, 11929
Caihong	10817
Cailing	10748
Candle	10030, 10046, 10186, 10056
Carnivale	10030
Carver	10054, 10170
Celebrity	10000
Celera	10765
Changcheng	10051, 10817, 10001, 10391, 10264
Changfei	10817
Changfeng	10817, 10264

Changhai	10817
Changhong	10156, 10765, 10817, 10264, 10783, 10767, 11910
Chengdu	10817
Ching Tai	10003, 10474, 10179, 10092
Chun Yun	10000, 10180, 10161, 10474, 11150, 10092, 10843, 10003, 10179, 10700
Chunfeng	10264
Chung Hsin	10180, 10053, 11150, 10036, 10474
Chunsun	10817
Cinema	10672
Citizen	10060, 10030, 10039, 10280, 10056, 10186, 10046, 10092, 11928
Clairtone	10185
Clarion	10180
Colt	11906
Concerto	10056
Conrowa	10156, 10145, 10264
Contec	10180, 10157, 10185
Craig	10180, 10161
Crosley	10054
Crown	10180, 10039
Curtis Mathes	10047, 10054, 10154, 10451, 10093, 10060, 10702, 10030, 10145, 10166, 10466, 11347, 10039, 10056, 11147, 10016, 11919
CXC	10180
Daewoo	10154, 10451, 10180, 10030, 10178, 11661, 10474, 10003, 10628, 10032, 11150, 10092, 11928, 10627, 10700, 10056, 11909, 10170, 10391, 10623, 10019, 10672, 10039
Daytron	10019
Dayu	10391
Dell	11080
Denon	10145, 10511
Dumont	10017, 10019
Durabrand	10463, 10180, 10178, 10171, 11034, 10003
Dwin	10774, 10720
ECE	10037
Electroband	10000, 10185
Electrohome	10381
Elektra	10017, 11661
Emerson	10154, 10236, 10463, 10180, 10178, 10171, 10280, 10623, 10038, 11911, 11944, 10179, 10019, 11909, 11929, 10185, 10282, 11905, 10039, 11928, 10177
Envision	10030, 10813
Epson	10833, 10840
Ether	10030, 10161, 10003
Feilu	10817
Feiyan	10264
Feiyue	10817
Firstar	10236

Fisher	10154, 10159
Fortress	10093
Fujitsu	10186, 10853, 10179, 10809, 10683
Funai	10180, 10171, 10264, 11904, 10179, 10342
Furi	10145, 10817, 10264
Futuretech	10180
Ganxin	10817
Gateway	11756, 11755
GE	11447, 10047, 11454, 10051, 10451, 10180, 10030, 10178, 10092, 11147, 11919, 10055, 10027, 11917, 10135, 10282, 11347, 10021, 11907, 11922
General	10186
Gibralter	10017, 10030, 10019
Gintai	11150, 10474
Go Video	10886
GoldStar	10154, 10030, 10178, 11926, 10019, 10037, 11910, 10001, 10032, 10056, 11150, 10039
Goodmans	10360
Grunpy	10180, 10179
Haier	11034, 10768
Haiyan	10264, 10817
Hallmark	10178
Hankook	10180, 10030, 10178, 10019, 10056, 10628
Harley Davidson	11904, 10179
Harman/Kardon	10054
Harvard	10180
Havermy	10093
Hello Kitty	10451
Himitsu	10180, 10628
Hisense	10156, 10748, 10145
Hitachi	11256, 10156, 10030, 10178, 11145, 10145, 10038, 11245, 10092, 10027, 10381, 10036, 11150, 10056, 11904, 10151, 10165, 10019, 10186, 10032, 10039, 10157, 10016, 10179, 10474
Hongmei	10093, 11910, 10817, 10264
Hongyan	10817, 10264
Hua Tun	11150
Huafa	10145
Huanghe	10817
Huangshan	10264, 10817
Huanyu	11910, 10817, 10264
Huaqiang	10264
Huari	10145, 10264
Huodateji	10051
Hyundai	10849
Imperial Crown	10001, 10391, 10264
Infinity	10054
Inteq	10017
Janeil	10046
JBL	10054
JCB	10000

Jean	10156, 10051, 10236, 10092, 10179, 10003, 10474
Jensen	10761, 10815, 11933, 10817
Jiahua	10051
Jialicai	10264
Jinfeng	10051, 10817
Jinhai	11910
Jinque	10817, 10264
Jinta	10264, 11910
Jinxing	10054, 10156, 10145, 10264, 10037, 10817
Juhua	10817, 10264
JVC	10053, 10160, 11923, 11253, 10036, 10653
Kaige	10264, 10817
Kangchong	11910
Kangli	10001, 10817, 10391, 10264
Kangyi	10264
Kaypani	10052
KEC	10180
Kenwood	10030, 10019
KLH	10765, 10767
KLL	10037
Kloss	10046, 10024
Kolin	10180, 10053, 11150, 10036, 10474
Kongque	10264, 10817
Konka	10632, 10707, 11940, 10628, 10703, 11939, 10638, 10817
KTV	10180, 10030, 10185, 10039, 10280
Kuaile	10264
Kunlun	10051, 10817, 10264
LG	10060, 10030, 10178, 10056, 10442, 10856, 10001, 10038, 10700, 10019, 10037, 10474, 11178, 10003, 10032, 10006
Lihua	10817
Lloyd's	11904
Loewe	10136
Logik	10016
Longjiang	10264, 10817
Luxman	10056
LXI	10047, 10054, 10154, 10156, 10178
Magnasonic	11928, 11913
Magnavox	11454, 10054, 10030, 10706, 11904, 10020, 11944, 10036, 10179, 10386, 11931, 10096, 10187, 11254, 11913, 10024, 10186
Magnin	11907
Majestic	10016
Marantz	10054, 10030, 10854, 10704, 11154, 10855
Maruman	10627, 10391
Matsushita	10250, 10650, 10161
Megapower	10700
Megatron	10178, 10145, 10003
MEI	10185
Meile	10264, 11910, 10817
Memorex	10154, 10463, 10150, 10178, 10179, 11920, 11927, 10016,

	11911, 11926, 11924
Mermaid	10037
MGA	10150, 10030, 10178, 11907, 10019
Midland	10047, 10017, 10051, 10039, 10135, 10032
Minutz	10021
Mitsubishi	10154, 10250, 10093, 10236, 10180, 11250, 10150, 10030, 10178, 10381, 10836, 10036, 10179, 10817, 11150, 10474, 10019, 10868, 10056, 11917
Monivision	10843, 10700
Motorola	10093, 10055
MTC	10060, 10030, 10185, 10019, 10056
Mudan	10051, 10817, 10264
Multitech	10180
NAD	10156, 10178, 10866
Nanbao	11910, 10264
Nansheng	10817, 10264
National	10051
NEC	10154, 10156, 10051, 10053, 10030, 10178, 10046, 11150, 10056, 10165, 10186, 10474, 10036, 10882, 10381, 10817, 11704, 10170, 10264, 10019, 10497
Newave	10093, 10178, 11150, 10092, 10161
Nikko	10030, 10178, 10092
Nikon	11910
Norcent	10748, 10824
Noshi	10018
NTC	10092
Onking	10280
Onwa	10180
Optimus	10154, 10250, 10166, 11924, 11913, 10650, 11927
Optoma	10887
Optonica	10093, 10165
Orion	10236, 10463, 11911, 11905, 10179, 11463, 11929
Panasonic	10054, 10250, 10051, 10161, 11410, 11927, 11947, 10037, 10055, 10650, 11924, 11946, 11919, 11941
Panda	10051, 10706, 10817, 10264, 11910
Penney	10047, 10156, 10051, 10060, 10030, 10178, 10135, 11347, 11926, 10018, 10027, 10039, 11919, 10003, 10021, 10032, 11907, 10019
Philco	10054, 10180, 10030, 10178, 10628, 10474, 10020, 10037, 10096, 10186, 10774, 10019, 10032, 10056
Philips	11454, 10054, 10000, 10051, 10030, 10178, 10474, 10019, 11154, 10092, 10187, 10774, 10024, 10037, 10056, 10186, 10690, 10020, 10032
Pilot	10030, 10019, 10039
Pioneer	10166, 10038, 10866, 10679

Portland	10092, 10039, 10019
Prima	10761, 10815, 10783, 11933, 10817
Princeton	10717, 10700
Prism	10051
Proscan	11447, 10047, 11347, 11922
Proton	10030, 10178, 10001, 10039, 10466, 10003, 10052, 10474
Pulsar	10017, 10019
Qingdao	10051, 10817, 10264
Quasar	10250, 10051, 11924, 10165, 11919, 10055, 10650
RadioShack	10047, 10154, 10180, 10030, 10178, 10032, 10056, 11920, 10165, 11904, 10019, 10039
RCA	11447, 10047, 11454, 10000, 10030, 10178, 10679, 11247, 11917, 10090, 11948, 11147, 10019, 11907, 11922, 10135, 11958, 11047, 11347, 10018, 11547, 10038, 11919, 10092, 11953
Realistic	10154, 10180, 10030, 10178, 10056, 10019, 10039, 10165, 10032
Rhapsody	10185
Rowa	10748, 10037, 10817
Runco	10017, 10030, 10603, 10497
Ruyi	10817
Saige	10817
Sampo	10154, 10093, 10030, 10178, 10171, 10032, 10052, 10474, 11755, 10039, 10700, 10036, 10092, 10650
Samsung	10154, 10156, 10060, 10812, 10702, 10030, 10178, 10019, 10056, 11060, 10092, 10474, 10774, 10032, 10817, 10090, 11903, 10264, 10766, 10814, 11150, 10179
Samsux	10039
Sanjian	10264
Sansui	10463, 11904, 11929, 11911
Sanyo	10154, 10156, 10180, 10145, 10376, 10474, 10036, 10893, 11907, 10159, 10280, 10424, 10799, 11154, 10157, 10264, 10381, 10798, 10088, 11150
Sanyuan	10093, 10817
Scimitsu	10019
Scotch	10178
Scott	10236, 10180, 10178, 10179, 10019
Sears	10047, 10054, 10154, 10156, 10178, 10171, 11926, 11904, 10056, 10159, 10179
Shancha	10817, 10264
Shanghai	10264, 11910, 10817
Shaofeng	10145, 10817
Sharp	10093, 10030, 10157, 10386, 10650, 10720, 10032, 10851,

	10256, 10491, 10689, 10818, 10039, 10165, 10474, 10688, 10787, 10036, 11917
Sharper Image	11950
Shen Ying	10092, 10003, 10474, 10179
Shencai	10145, 10264
Sheng Chia	10093, 10236, 10179, 11150, 10474
Shenyang	10817, 10264
Shogun	10019
Signature	10016
Simpson	10187, 10186
Skygiant	10180
Skyworth	10748, 10264, 10037, 10817
Sony	11100, 10000, 10036, 10650, 11300, 10111, 11925, 10080, 10834, 11904
Soundesign	10180, 10178, 10179, 10186
Sowa	10156, 10051, 10060, 10178, 10036, 10092, 10474, 11150
Spectricon	10003
Squareview	10171
SSS	10180, 10019
Starlite	10180
Studio Experience	10843
Supre-Macy	10046
Supreme	10000
SVA	10748, 10587, 10865, 10872, 10768, 10871, 10870
Sylvania	10054, 10030, 10171, 11931, 10381, 11944, 10020, 10096
Symphonic	10180, 10171, 11913, 11904
Synco	10000, 10451, 10093, 10060, 10178, 10092, 10036, 10474
Tacico	10178, 10179, 11150, 10092, 10474
Tai Yi	11150
Taishan	10817, 10391
Tandy	10093
Tashiko	11150, 10650, 10092
Tatung	10054, 10154, 10156, 10051, 10060, 11150, 10474, 10036, 10055, 11756, 10003
Technics	10250, 10051
Technol Ace	10179
Techview	10847
Techwood	10051, 10003, 10056
Teco	10051, 10093, 10178, 10474, 10036, 10280, 10092, 10264, 10653
Teknika	10054, 10180, 10150, 10060, 10019, 10056, 10186, 10016, 10092, 10039, 10179
Telefunken	10702, 10056
Tera	10030, 10466, 10474
Thomas	11904
Tiane	10093, 10817
TMK	10178, 10177, 10056
TNCi	10017
Tobo	10748, 10264
Tongguang	10264

Toshiba	10154, 11256, 10156, 10060, 10145, 11918, 11945, 10381, 10832, 10036, 11704, 11936, 10264, 10650, 11150, 11656, 11935, 10161, 10509, 10845, 11356
Tosonic	10185
Totevision	10039
Trical	10157
Tuntex	10030, 10474, 10092
TVS	10463
Ultra	10391
Universal	10027
V Inc.	11756, 10885, 10864
Vector Research	10030
Victor	10250, 10053, 10160, 10650, 10376, 10036, 10653
Vidikron	10054
Vidtech	10178, 10019, 10036
Viewsonic	10857, 11755, 10885, 10864
Viking	10046
Wards	10054, 10030, 10178, 10020, 10080, 10165, 10866, 10019, 10027, 10056, 10111, 10179, 10016, 10021, 10096
Warumaia	10391
Waycon	10156
Westinghouse	10889
White Westinghouse	10463, 10186, 11909, 10623
Xiahua	10817, 10264
Xiangyang	10264
Xihu	10817, 10264
Xinghai	10264
Xinrisong	11910
Xuelian	11910
Yamaha	10030, 10838, 10019, 10833, 10769, 10839
Yapshe	10250
Yongbao	11910
Youlanasi	10817
Yousida	11910
Zenith	10017, 10463, 10178, 11911, 10016, 11909, 10092, 11904, 11929
Zonda	10003

Setup Code For VCRs (V)

ABS	21972
Admiral	20048, 20209
Adventura	20000
Aiko	20278

Aiwa	20037, 20000, 20307, 20468, 20124, 20406, 20348, 20479
Akai	20041, 20061, 20175, 20106
Alienware	21972
America Action	20278
American High	20035
Amoisonic	20479
Anam	20162, 20037, 20240, 20278, 20226, 21037
Anam National	20162, 20226
Asha	20240
Audiovox	20037, 20278
Beaumark	20240
Bell & Howell	20104
Blaupunkt	20226
Broksonic	20184, 20121, 20209, 20002, 20348, 20295, 21479, 20479
Calix	20037
Canon	20035, 21174, 20167
Carver	20081
CCE	20072, 20278
Changhong	20048, 20081
Citizen	20037, 20278, 21278
Colt	20072
Craig	20037, 20047, 20240, 20072, 20271
Curtis Mathes	20060, 20035, 20162, 20041, 20760, 21035
Cybernex	20240
CyberPower	21972
Daewoo	20045, 20104, 20278, 20210, 20368, 21278, 20637, 20046, 20212, 20561
Dell	21972
Denon	20042
DirecTV	20739, 21989, 21954, 21949
Dish Network System	21943, 21946, 21945, 21944
Dishpro	21944, 21943
Durabrand	20039, 20038
Dynatech	20000
Echostar	21943, 21946, 21945, 21944
Electrohome	20037
Electrophonic	20037
Emerex	20032
Emerson	20035, 20037, 20184, 20240, 20045, 20000, 20121, 20043, 20209, 20002, 20278, 20295, 20036, 20637, 21593, 20561, 21479, 20068, 20208, 20479, 21278, 20061, 20212
Euro1	21962
Expressvu	21944
Fisher	20047, 20104, 20066, 20054
Fuji	20035, 20033
Fujitsu	20045, 20052, 20366
Funai	20000, 20593, 21593
Garrard	20000
Gateway	21972
GE	20060, 20035, 20240, 21060, 20202, 20760, 21035, 20807, 20226, 20761

General	20045, 20366, 20052
Go Video	20643, 20526, 20432
GOI	21944
GoldStar	20037, 20209, 20038, 20226, 20225, 21237
Gradiente	20000
Haojie	20240
Harley Davidson	20000
Harman/Kardon	20081, 20038
Harwood	20072, 20068
Hauppauge	21992
Headquarter	20046
Hewlett Packard	21972
HI-Q	20047
Hitachi	20037, 20000, 20042, 20041, 20166, 20105, 20089
Howard Computers	21972
HP	21972
HTS	21944
Hughes Network Systems	20042, 21949, 20739
Hyundai	21951
iBUYPOWER	21972
Jensen	20041
JVC	20045, 20067, 20041, 21945, 20008, 21944, 20384, 20366
KEC	20037, 20278
Kenwood	20067, 20041, 20038, 20384
KLH	20072
Kodak	20035, 20037
Kolin	20043, 20041
LG	20037, 20045, 20042, 20209, 20038, 22010, 21037, 20040
Lloyd's	20000, 20208
Logik	20072
LXI	20037
Magnasonic	21278, 20593
Magnavox	20035, 20039, 20081, 20000, 20593, 20563, 20110, 21781
Magnin	20240
Marantz	20035, 20081, 21381
Marta	20037
Matsushita	20035, 20162, 20226, 21162, 20367, 20227
Media Center PC	21972
MEI	20035
Memorex	20035, 20162, 20037, 20048, 20039, 20047, 20240, 20000, 20104, 20209, 21237, 20046, 20479, 21162, 20348, 21048, 21262, 20307, 21037
MGA	20240, 20043, 20061
MGN Technology	20240
Microsoft	21972
Mind	21972
Minolta	20042, 20105
Mitsubishi	20067, 20043, 20041, 20061, 20807, 20173
Motorola	20035, 20048
MTC	20240, 20000
Multitech	20000, 20072

NAD	20058
National	20226
NEC	20035, 20037, 20048, 20104, 20067, 20041, 20038, 20040, 20008, 20370
Newave	20037
Nikko	20037
Nikon	20253, 20034
Noblex	20240
Northgate	21972
Olympus	20035, 20226, 21046
Onkyo	20222
Optimus	21062, 20162, 20037, 20048, 20104, 21048, 21262, 20593, 21162, 20058, 20432
Optonica	20062
Orion	20184, 20209, 20002, 20479, 20295, 21479
Panarex	21950
Panasonic	21062, 20035, 20162, 20077, 20226, 20616, 21162, 20225, 20367, 20227, 21035, 21262
Pansat	21950
Penney	20035, 20037, 20240, 20042, 20038, 21035, 20040, 20054, 21237
Pentax	20042, 20105
Philco	20035, 20000, 20226, 20479
Philips	20035, 20081, 20000, 20226, 20739, 21381, 20110, 20618, 21181, 20563, 21081, 21949, 20062
Pilot	20037
Pioneer	20042, 20067, 20058
Polk Audio	20081
Profitronic	20240
Proscan	20060, 20760, 21954, 20202, 21060, 20761
Protec	20072
Pulsar	20039
Qisheng	20060
Quarter	20046
Quartz	20046
Quasar	20035, 20162, 21035, 20077, 21162
RadioShack	20000, 21037
Radix	20037
Randex	20037
RCA	20060, 20035, 20240, 20000, 20042, 20807, 21060, 21989, 20106, 20761, 21035, 20058, 21964, 20105, 20226, 20760, 20880, 21954, 20077, 20202, 20453
Realistic	20035, 20037, 20048, 20047, 20000, 20104, 20066, 20046, 20062
ReplayTV	20614, 20616
Ricoh	20253, 20034
Runco	20039
Sampo	20037, 20048
Samsung	20240, 20045, 20212, 20760, 20210, 20432, 21014

Samtron	20643
Sanky	20048, 20039
Sansui	20000, 20067, 20209, 20041, 20479, 20271, 21479
Sanyo	20047, 20240, 20104, 20046, 20159, 20369, 20368
Scott	20184, 20045, 20121, 20043, 20210, 20212
Sears	20035, 20037, 20047, 20000, 20042, 20104, 20046, 20066, 21237, 20054, 20105
Sharp	20048, 20209, 20363, 20848, 20807, 20062, 20738, 21048
Shinco	20000
Shintom	20072
Shogun	20240
Singer	20072
Sonic Blue	20614, 20616
Sony	20035, 20032, 20033, 20000, 20253, 20639, 21232, 21972, 20636, 21032, 21957, 20034, 20586, 20640, 21956
STS	20042
Sunpak	20253
Sylvania	20035, 20081, 20000, 20043, 20110, 21781, 21593, 20593
Symphonic	20000, 21593, 20593
Systemax	21972
Tagar Systems	21972
Tashiko	20037
Tatung	20045, 20067, 20041, 20366, 20008
Teac	20000, 20041
Technics	20035, 20162
Teco	20035, 20037, 20048, 20041, 20038, 20040
Teknika	20035, 20037, 20000, 20052
Thomas	20000
Tivo	20739, 21957, 20636, 21956, 20618, 21503
TMK	20240, 20208, 20036
Toshiba	20045, 20067, 20043, 20041, 20210, 20384, 21008, 21972, 20366, 20845, 21503, 20066, 20212, 20828, 21145, 20008
Totevision	20037, 20240
Touch	21972
UltimateTV	21989
Unitech	20240
Vector	20045
Vector Research	20038, 20040
Victor	20067, 20041, 20008, 20384
Video Concepts	20045, 20040, 20061
Videomagic	20037
Videosonic	20240
Viewsonic	21972
Villain	20000
Wards	20060, 20035, 20048, 20047, 20081, 20240, 20000, 20042, 20072, 20062, 20212, 20760
White Westinghouse	20209, 20072, 20637

XR-1000	20035, 20000, 20072
Yamaha	20041, 20038
Zenith	20039, 20033, 20000, 20209, 20034, 20479, 21479, 21139, 20637
ZT Group	21972

Setup Code For Digital Video Disks (Y)

Adcom	21094
Advent	21016
Aiwa	20641, 21912
Akai	20899, 20770, 21975, 21089
Allegro	20869
Amphion Media Works	22016, 22001
AMW	20872, 22016, 22001, 21176
Anam	21913
Apex Digital	20672, 20717, 20797, 21020, 21100, 20796, 21004, 21061, 21937, 20794, 20830, 21056, 21915, 20755
Aspire Digital	21168
Audiologic	20736
Audiovox	21071, 21122, 21041, 21121, 21072
Axion	21071, 21072
B & K	20662, 20655
Bel Canto Design	21571
Blaupunkt	20717
Blue Parade	20571
Broksonic	20868, 20695
Cambridge Soundworks	21916
CAVS	21057
Changhong	20627, 21061
CineVision	20876, 20869
Classic	21917
Coby	20778, 21107, 21086, 21923, 20852, 21165
Criterion	22007
Curtis Mathes	21087
CyberHome	21023, 21129, 20816, 21117, 21024
Daewoo	20784, 20869, 20833, 21918, 21172, 20705
Denon	20490, 20634
Dual	21085, 21068
DVD2000	20521
Emerson	20591, 20675, 20821
Enterprise	20591
Fisher	20670, 21919
Funai	20675
Gateway	21077, 21073, 21158
GE	20522, 20815, 20717
Go Video	20744, 20869, 21099, 21970, 20715, 20833, 21075, 21730, 20783, 21044, 21144
GPX	20699, 20769
Greenhill	20717
Harman/Kardon	20582, 20702

Hitachi	20573, 20664, 21919
Hiteker	20672
Initial	20717, 21931
Integra	20627, 21924
Jamo	22003
Jaton	21078
JBL	21926, 20702
Jensen	21016
JVC	20558, 20623, 21940, 21901, 20867
jWin	21051, 21049
Kenwood	20490, 20534, 21063, 20682
KLH	20717, 21939, 21149, 21020
Konka	20720, 20719, 20711, 20721
Koss	20651
Landel	20826
Lasonic	20798, 21173
Lenoxx	21938
LG	20801, 20101
Liquid Video	21980
Lite-On	21158, 21058
Loewe	20511
Magnavox	20503, 20675, 21976, 21914, 20821
Malata	21159, 20782
Marantz	20539
Memorex	20695
Microsoft	20522
Mintek	20839, 20717
Mitsubishi	21521, 20521
Momitsu	21082
NEC	20785
Nesa	20717
Next Base	20826
Niro	22024
Norcent	21003, 20872, 21923, 21107
Onkyo	20503, 20627, 21924, 20792, 21985
Oritron	20651, 21980
Panasonic	20490, 21462, 21907, 21910, 21990, 21362, 21762, 21909, 21986, 20632, 21490, 21908, 21925, 22017
Philco	22000
Philips	20503, 20539, 20646, 20885, 20854, 21914
Pioneer	20525, 20571, 20638, 20632, 20631, 21902
Polaroid	21086, 21061, 21998, 21200
Polk Audio	20539
Portland	20770
Prima	21016
Princeton	20674
Proscan	20522
ProVision	20778
Qwestar	20651
RCA	20522, 20571, 20717, 20822, 21193, 21974, 21132, 21965, 21022, 21913
Regent	21938
Rio	20869
Rotel	20623
Rowa	20823

Saba	21977
Sampo	20752, 20698
Samsung	20490, 20573, 20820, 21932, 21075, 20899, 21979
Sansui	20695
Sanyo	20695, 20670, 21967, 20873
Sharp	20630, 20752
Sharper Image	21995, 21117
Sherwood	21043, 20770, 20633, 21077
Shinco	20717
Shinsonic	20533, 20839, 21931
Sigma Designs	20674
Sonic Blue	20869, 21970, 21099
Sony	20533, 21533, 20864, 21033, 21904, 22020, 21903, 21981, 20772, 21934
Sungale	21074
Superscan	20821
SVA	20717, 20860, 21105
Sylvania	20821, 20675
Symphonic	20675
Teac	21984, 20809
Technics	20490
Technosonic	20730
Techwood	20692
Terapin	21031
Theta Digital	20571
Tivo	21996
Toshiba	20503, 21154, 22006, 21045, 21996, 20695, 21988
Tredex	20803, 20800, 20799, 20804
TYT	20705
Urban Concepts	20503
US Logic	20839
V Inc.	21226, 21064
Vocopro	21027
Xbox	20522
Xwave	21001
Yamaha	20490, 20539, 20545
Zenith	20503, 20591, 21906, 20869, 22002

Setup Code For Audio Amplifiers (A)

Accuphase	30382
Acurus	30765
Adcom	31100, 30577
Aiwa	30406
AudioSource	30011
Bel Canto Design	31583
Bose	30674
Carver	30269
Classe	31461, 31462
Curtis Mathes	30300
Denon	30160

Durabrand	31561
GE	30078
Harman/Kardon	30892
JVC	30331
Kenwood	30356
Korsun	31483
Left Coast	30892
Lenoxx	31561
Linn	30269
Logitech	31408
Luxman	30165
Magnavox	30269
Marantz	30892, 30321, 30269
Mark Levinson	31483
Nakamichi	30321
NEC	30264
Optimus	30395, 30300
Panasonic	30521, 30308
Parasound	30246
Philips	30892, 30269
Pioneer	30013, 30300
Polk Audio	30892, 30269
PS Audio	31523
RCA	30300
Realistic	30395
Sansui	30321
Shure	30264
Sony	30689, 30220, 30815
Soundesign	30078, 30211
Technics	30521, 30308
Victor	30331
Wards	30078, 30211, 30013
Yamaha	30354, 30143, 30133, 30504
YBA	31502

Setup Code For CD Players (D)

ADC	30018
Adcom	30155, 30234
Aiwa	30157, 30124, 30012
Akai	30156
Audio Alchemy	30194
Audio-Technica	30170
BSR	30245, 30194
Burmester	30420
California Audio Labs	30029, 30303
Carrera	30194
Carver	30157, 30437, 30179
Classic	31297
Crown	30122
DAK	30245
DBX	30254
Denon	30873, 30003
DKK	30000
DMX Electronics	30157
Dynamic Bass	30179
Emerson	30305, 30164, 30155, 30469

Fisher	30179, 30174, 31325, 30088, 30342
Garrard	30245, 30420, 30393, 30280, 30425
GE	30009
Gemini	30625
Genexxa	30032, 30305, 30164
GoldStar	30417
GPX	31296
Harman/Kardon	30157, 30173, 31202, 30426
Hitachi	30032, 30155
Inkel	30196, 30180, 30437
Integra	30101
JVC	30072, 31294, 30655
Kenwood	30681, 30826, 30626, 30028, 30037, 30036, 30190
KLH	31318
Kodak	30287
Korsun	31484
Koss	31317
Krell	30157
Kyocera	30018
LG	31208
Linn	30157
Luxman	30093
LXI	30305
Magnavox	30157, 30305
Marantz	30626, 30029, 30157, 30180
Mark Levinson	31484
McIntosh	30287
MCS	30029, 30043
Miro	30000
Mission	30157
MTC	30420, 30625
Nakamichi	30147
NEC	30043, 30234
Nikko	30174, 30170, 30164, 30625
NSM	30157
Onkyo	30868, 30101
Optimus	31063, 30000, 30032, 30037, 30342, 30437, 31075, 30145, 30194, 30305, 30426, 30087, 30179, 30280, 30420, 30468, 30175, 30196
Panasonic	30029, 30752, 30303
Parasound	30420, 30194
Philips	30626, 30157, 30287
Pioneer	31063, 31062, 30032, 30305, 30468, 31087
Polk Audio	30157
Proton	30157
QED	30157
Quad	30157
Quasar	30029
RadioShack	31075
RCA	31062, 30032, 30305, 30764, 30179, 30468, 30009, 30155, 30420, 30053
Realistic	30164, 30180, 30155, 30179, 30175, 30420
Rotel	30157, 30420
SAE	30157

Sansui	30157, 30305, 30202
Sanyo	30179, 30087
SAST	30157
Scott	30305, 30164, 30155
Sears	30305
Sharp	30861, 30037, 30180
Sherwood	31067, 30196, 30180, 30426
Shure	30043
Silsonic	30888, 30036
Sonic Frontiers	30157
Sony	30490, 30000, 31364, 30185, 30605, 30100, 30604
Soundesign	30425, 30145
STS	30018
Symphonic	30305
TAG McLaren	30157
Tascam	30420
TDK	31208
Teac	30393, 30180, 30174, 30420
Technics	30029, 30207, 30303
Tivoli Audio	31553
Vector Research	30194, 30417
Victor	30072
Wards	30157, 30053
Yamaha	30888, 30036, 30187, 30170, 31292
YBA	30625
Yorx	30461
Zonda	30157

Setup Code For Audio Amp/Tuners (R)

ADC	30531
Adcom	31616, 30616, 31617
Aiwa	31405, 30158, 30189, 31243, 31089, 31388, 30121, 30405, 31321, 31641, 31347
Akai	30224, 30076, 31512, 31255
Alco	31390
Amphion Media Works	31615, 31563
AMW	31563, 31615
Anam	31609, 31074, 30281
Apex Digital	31430, 31257
Arcam	31120
Audiophase	31387
Audiotronic	31189
Audiovox	31390, 31627
AVLight	30158
Bel Canto Design	31584
Bose	31229, 31253, 30639
Brix	31602
Cambridge Soundworks	31477, 31370
Capetronic	30531
Carver	31189, 30189, 30042, 31089, 30008, 30360
Casio	30195
Clarinette	30195
Classic	31352
Coby	31513, 31389, 31263

Compaq	31136
Criterion	31420
Curtis	31596
Curtis Mathes	30080
Daewoo	31250
Dell	31383
Denon	31360, 30004, 31104, 30771, 31311, 30273, 31142, 30301
Dynamic Bass	30360
Emerson	30424, 30255
Fisher	31409, 30360, 30219, 31801, 30042
Fonmix	31360
Fosgate	31487
Garrard	30424, 30281, 30463, 30146, 30440
Gateway	31517, 31567
GE	31379
Glory Horse	31263
Go Video	31532
GoldStar	30281
GPX	31299
Hafler	30146
Harman/Kardon	30110, 30189, 30891
Hewlett Packard	31181
Hitachi	31801, 31273
Initial	31426
Inkel	30027, 30062, 30502, 30491
Integra	30135, 31298
JBL	30110, 31306, 30281
JVC	30074, 31282, 31263, 31495, 31374
Kansai	30440
Kenwood	31313, 31570, 31569, 30027, 31051, 30077, 30313, 31027, 30042, 30239, 30569, 31052, 30186, 30314
KLH	31412, 31390, 31428
Koss	30424, 30255, 31366
Lasonic	31798, 31510
Lenoxx	31437
Lexicon	31076
Linn	30189
Liquid Video	31497
Lloyd's	30195
LXI	30181
Magnavox	31189, 31269, 30189, 30128, 30391, 30195, 31089, 31514, 30531
Marantz	31189, 31269, 30039, 30189, 31089, 31289, 30200, 30128
MCS	30039, 30346
Memorex	31596
Mitsubishi	31393
Modulaire	30195
Musicmagic	31089
NAD	30320
Nakamichi	30347, 30097, 31555
NEC	30235
Norcent	31389
Onkyo	30135, 31298, 30842, 30380, 31531
Optimus	31023, 30801, 31074, 30080, 30186, 30531, 30797, 30042,

	30181, 30440, 30738, 30849, 30177, 30219, 30670
Oritron	31497, 31366
Panasonic	31518, 30039, 31548, 31764, 30518, 31350, 31763, 30367, 31316, 31509, 31633, 30309, 31288, 31363
Penney	30195
Philco	31390
Philips	31189, 31269, 30189, 31365, 31089, 31266, 31283, 30891, 31368, 30391, 31120, 31268
Pioneer	31023, 30150, 30630, 31184, 30080, 30531, 31084, 31384, 30244, 31343
Polaroid	31508
Polk Audio	30189, 31289
Proscan	31254
Qisheng	31609, 31390
Quasar	30039
RadioShack	31263
RCA	31023, 31609, 31254, 30346, 30531, 31154, 31511, 30080, 30530, 31074, 31390, 30054, 30360
Realistic	30195, 30181, 30163
Regent	31437
Rio	31869, 31383
Saba	31519
Samsung	31500, 31295
Sansui	30189, 30346, 30193, 31089
Sanyo	30801, 30360, 31469, 30219, 31251
Scott	30163, 30322
Sharp	31286, 30186, 31386, 31361
Sharper Image	31545, 31556, 30797, 31409, 31416, 31549, 31385, 31411, 31546, 31723, 31263, 31410
Sherwood	30491, 31423, 30062, 31077, 30502, 31653
Shinco	31390
Shinsonic	31426
Silsonic	30176, 31426
Sonic	30281
Sonic Blue	31383, 31869, 31532
Sony	31058, 31441, 31258, 31759, 30158, 31442, 31529, 31758, 31371, 31503, 31042, 31658, 31158, 31858, 31367, 31406, 31458, 30168, 31558, 31131, 31349, 31382
Soundesign	30670
Stereophonics	31023
Sunfire	31313, 30314, 30313, 31052
Tae Kwang	30440
Teac	30163, 31267, 31074, 31528, 30463, 31390
Technics	31308, 31518, 30039, 30518, 30309, 31309, 30208
Techwood	30281
Thorens	31189
Venturer	31390, 30849

Victor	30074
Wards	30158, 30189, 30080, 30054
Yamaha	30176, 30081, 31176, 31375, 30186, 31331, 31276
Yorx	30195
Zenith	31293, 30857, 30281, 31869

Setup Code For Cable Converters (C)

ABC	00003, 00008, 00014, 00001, 00007, 00013, 00011, 00017
Allegro	00315, 00153
Americast	00899
Antronix	00207, 00022
Archer	00797, 00207, 00153, 00022
Belcor	00056
Bell & Howell	00014
Bell South	00899
Cable Star	00056
Cabletenna	00022
Cableview	00022
Century	00153
Citizen	00315, 00153
Clearmaster	00883
ClearMax	00883
Colour Voice	00025, 00031
Comtronics	00040
Contec	00019
Coolmax	00883
Daeryung	01877, 00877, 00477, 00008
Digi	00637
Director	00476
Dumont	00637
Eastern	00002
Emerson	00797
Everquest	00040, 00015
Focus	00400
Funai	00019
Garrard	00153
GC Electronics	00207, 00056
Gehua	00476
Gemini	00797, 00015
General Instrument	00476, 00810, 00276, 00003, 00014, 00011, 00015
Global	01327
GMI	00015, 00797
GoldStar	00144, 00040
Goodmind	00797
Hamlin	00009, 00273, 00034, 00020, 00259
Hitachi	00014, 00011
Hytex	00007
Jasco	00015, 00315, 00153
Jebsee	00400
Jerrold	00476, 00810, 00276, 00003, 00012, 00014, 00011, 00015
Leon	00015
LG	00144, 00040
Linsay	00440
Magnavox	00027
Memorex	00000

Motorola	00476, 00810, 00276, 01254, 01106, 01376
Movie Time	00156, 00063
MS	00015
MultiVision	00012
Novaplex	00618
NSC	00063, 00156
Oak	00019, 00007
Optimus	00021
Pace	01877, 00237
Panasonic	00000, 00008, 00107, 00040, 00021
Panther	00637
Paragon	00000
Philips	00317, 00027, 00025, 00153, 00013, 00031, 01305
Pioneer	01877, 00877, 00144, 00533, 01021
Popular Mechanics	00400
Pulsar	00000
Quasar	00000
RadioShack	00015, 00883, 00797, 00315
RCA	00021
Realistic	00207
Recoton	00400
Regal	00279, 00273, 00259, 00020
Regency	00002
Rembrandt	00011
Runco	00000
Samsung	00000, 00144, 00040
Scientific Atlanta	01877, 00877, 00477, 00008, 00017
Seam	00510
Signal	00040, 00015
Signature	00011
SL Marx	00040
Sony	01006
Sprucer	00021
Starcom	00003, 00014, 00015
Stargate	00015, 00797, 00040
Starquest	00015
Supercable	00276
Supermax	00883
Sylvania	00001
Tandy	00258
Teleview	00040
Texscan	00001
TFC	00310
Timeless	00040
Tocom	00012, 00013
Torx	00003
Toshiba	00000
Trans PX	00276, 00153, 00315
Tristar	00883
TS	00003
Tusa	00015
TV86	00063
Unika	00207, 00153, 00022
United Artists	00007
Universal	00153, 00056, 00207, 00022, 00191
V2	00883
Viewmaster	00883
Viewstar	00063, 00027, 00258

Vision	00883
Vortex View	00883
Zenith	00000, 00525, 00899
Zentek	00400

Setup Code For Video Accessories (N)

ABS	01272
Alienware	01272
CyberPower	01272
Gateway	01272
Hewlett Packard	01272, 01267
Howard Computers	01272
HP	01272
iBUYPOWER	01272
InterVideo	01393
Jensen	01165
JVC	01384
Keyspan	01344
KWorld	01403
LG	01415
Linksys	01365
Macro Image Technology	01383
Media Center PC	01272
Microsoft	01272
Mind	01272
Motorola	01363
MyHD	01383
Northgate	01272
Panasonic	01120
Pinnacle Systems	01268
Pioneer	01010
Princeton	00113, 00295
Rabbit	00081
Roku	01486
Samsung	01190, 01490
Sensory Science	01126
Sharp	01010
SMC	01456
Sony	01272, 01324, 01364
Streamzap	01309
Systemax	01272
Tagar Systems	01272
TeleCaption	00171
Toshiba	01272
Touch	01272
Viewsonic	01272, 01329
ZT Group	01272

Setup Code For Satellite Receivers (S)

AlphaStar	00772
Chaparral	00216
Crossdigital	01109

DirecTV	00392, 00566, 00639, 01639, 01142, 00247, 00749, 01749, 00724, 00819, 01856, 01076, 01109, 00099, 01444, 01108, 01392, 01443, 01640, 01442, 01414
Dish Network System	01005, 00775, 01775, 01505, 01170
Dishpro	01005, 00775, 01505, 01775
Echostar	01005, 00775, 01170, 01775, 01505
Expressvu	00775, 01775
Funai	00338
GE	00566
General Instrument	00869
GOI	00775, 01775
Goodmans	01246
Hisense	01535
Hitachi	00819, 01250, 00214, 00491, 00489, 00201
HTS	00775, 01775
Hughes Network Systems	01142, 00749, 01749, 01443, 01442, 01444
I-Lo	01535
JVC	00775, 01170, 00492, 01775
LG	01414, 01226
Magnavox	00724, 00722
Matsushita	00340, 00214, 00500
Memorex	00724
Mitsubishi	00749, 00491
Motorola	00869
NEC	00496, 01270
Next Level	00869
Panasonic	00247, 00701, 00214, 00500, 00340
Paysat	00724
Philips	01142, 00749, 01749, 00724, 01076, 00722, 00099, 01442
Proscan	00392, 00566
Proton	01535
RadioShack	00869
RCA	00392, 00566, 00855, 00143, 01392
Samsung	01276, 01109, 01108
Sanyo	00493, 01219
Sharp	00494
SKY	00856
Sony	00639, 01639, 00294, 01640, 00163
Star Choice	00869
Tivo	01142, 01444, 01443, 01442
Toshiba	00749, 01749, 00790, 00486, 01285
UltimateTV	01392, 01640
Uniden	00724, 00722
US Digital	01535
USDTV	01535
Victor	00492
Voom	00869
Zenith	00856, 01856

APPENDIX B – Detailed Remote Instructions

Nomenclature:

<<Code Set>> means to press and hold the Code Set button on the remote until the LED flashes twice.

Mode is any of the eight source buttons on the remote.

ID Code Setup
The four digit code obtained from the Appendix A can be programmed as follows:

Mode → <<Code Set>> → Digit→ Digit→ Digit→ Digit

When successful, the LED will blink two times after <<Code Set>>. The LED will blink once after each digit entry except for the last digit and will blink two times to confirm that a valid code has been programmed. The remote will turn off the LED, automatically exit the programming mode, return to the idle mode and restore the last preprogrammed codes under two conditions:

1. When 10 seconds has elapsed after the last key press.
2. When an invalid code is entered upon which the LED will display one long blink.

The programming mode will be exited at any time by pressing any key other than the digit key.

ID Code Verification (990)

The device code for a mode will be verified as follows:

Mode → <<Code Set>> → 9 → 9 → 0 → 1 (count blinks)→ 2 (count blinks) → 3 (count blinks) → 4 (count blinks).

The number of blinks counted after pressing each digit 1, 2, 3 and 4 key represents the 4 digit device code for the selected mode beginning with the left most digit. The remote will exit the Code Verification state when, after performing the sequence <9> → <9> → <0>, the user presses any key other than digit 1. If the sequence of pressing digits 1, 2, 3 and 4 for counting blinks is not maintained, the remote will exit Code Verification state. Operation error and state exit will be marked by the LED emitting a long blink. The remote will time out after 10 seconds during programming if no keys are pressed.

Example:
To verify the TV code is 0047:
<TV>→<<Code Set>> → 9 → 9 → 0 →

<1> → 0 blinks
<2> → 0 blinks
<3> → 4 blinks
<4> → 7 blinks

Step and Set (991)

In the event that the device code for a component is unknown, the user can cycle the remote through the available codes for that device mode and sample functions from each code in order to find the code that properly operates the component. The keys available to be sampled, provided they are applicable to that mode are: 0, 1, 2, 3, Power, Channel Up, Volume Up, Play and Stop. Invalid key presses will be ignored while in Step and Set programming state.

To cycle through each available device code and sample its functions:

Mode → <<Code Set>> → 9 → 9 → 1 → Function 1 [Function 2 → … Function N] →Mode → Code Set

The available functions within a code may be sampled as many times as desired until advancing to the next code by pressing the Mode key. Pressing Code Set listed at the end of the sequence will then program the remote with the device code that was last sampled.

The search function will indicate it has cycled through all of the available codes by blinking the LED three times. The remote will begin to cycle through the available codes again. The LED will light each time a function is sent. If no key is pressed within 10 seconds, the remote will exit the set up mode and return to the code previously set up before “Step and Set” was initiated. The remote will blink two times after successful completion of the programming sequence. The remote will time out after 10 seconds during programming if no keys are pressed.

Volume Lock (993)

The user will lock volume to one mode as follows (a.k.a. Global Volume Lock):

<<Code Set>> → <9> → <9> → <3> → <Desired Mode>

The user will reset the volume controls to be that of the original device code as follows (a.k.a. Global Volume Unlock):

<<Code Set>> → <9> → <9> → <3> → <Volume Up>

The remote will blink two times upon being locked and blink 4 times when unlocked.

If user wants to unlock volume for a specific mode (a.k.a. Individual Volume Unlock):

Mode→ <<Code Set>> → <9> → <9> → <3> → <Volume Down>

The remote will blink 4 times upon being unlocked.

The remote will time out after 10 seconds during programming mode if no keys are pressed.

Example:
[TV] → <<Code Set>> → <9> → <9> → <3> → <Volume Down>

Upon entry of an invalid key sequence, the remote control will display one long blink and return to normal operation.

The remote will exit programming state and return to normal operation if 10 seconds has elapsed between key presses.

Mode Reassignment (992)

This feature will change a selected device Mode Key to the desired device Mode Key. For example, an AUX device mode key (destination mode) could be changed to an additional VCR device mode key (source mode) to facilitate the operation of two different VCR devices.

<< Code Set >>→ 9 → 9 → 2 → Source Mode → Destination Mode

The ID in the destination mode now is the default ID of the source mode. The remote will blink two times after successful completion of the programming sequence. The remote will time out after 10 seconds during programming.

Example: To designate the AUX key to become a second DVD key

<< Code Set >> → <9> → <9> → <2> → <DVD> → <AUX>

Reset to Defaults
Operational Features Reset (980)
Clear all setup features not related to ID code setup. Namely, Key Movers, Volume lock, ID lock, and any EEPROM information related to these features.

<< Code Set >>→ 9 → 8 → 0

The remote will blink two times, pause, then blink two more times after successful completion of the programming sequence. There will be 2 blinks if no EEPROM or EEPROM is bad. The remote will time out after 10 seconds during programming.
Manufacturing Reset (981)
Functions the same as the Operational Reset (980) with the exception that the remote resets to the default ID and additionally clears all EEPROM data including all upgraded codes:

<< Code Set >>→ 9 → 8 → 1

The remote will blink two times, pause then blink two more times after successful completion of the programming sequence. There will be 2 blinks and one long blink if EEPROM is bad. The remote will time out after 10 seconds during programming.
Basic User Reset (977)
Similar to the Operational Features Reset (980) with the exception that the remote will reset codes to the default settings:

<< Code Set >> → 9 → 7 → 7

The remote will blink two times, pause, then blink two more times after successful completion of the programming sequence. There will be 2 blinks if no EEPROM or EEPROM is bad. The remote will time out after 10 seconds during programming.

Code Lock/Unlock for Specific Mode (982)

After a valid code has been set, the code for a specific mode will be locked and unlocked as follows:

Mode → << Code Set >> → 9 → 8→ 2

The remote will blink two times upon being locked and blink 4 times when unlocked.
The remote will time out after 10 seconds during programming.
Step and Set and Mode Reassignment will not be allowed when the code has been locked.

APPENDIX C – FIREBALL RC6 Mode 6A Code Table

The FireBall IR remote uses the **Philips RC6 Mode 6A** IR protocol. The following table lists the RC6 Mode 6A key codes used by the FireBall that can be used in the ProntoEdit PC application to generate the IR codes for the Philips Pronto remote products and can also be used to generate the CCF files that can be imported into other 3rd party applications and control systems.

Note: There are also discrete IR codes listed in the table that are not available on the IR remote but can be used by control systems for functions such as discrete Power On and Off.

Escient Company Code: 32790
FB1: Address = 1
FB2: Address = 2
FB3: Address = 3
FB4: Address = 4

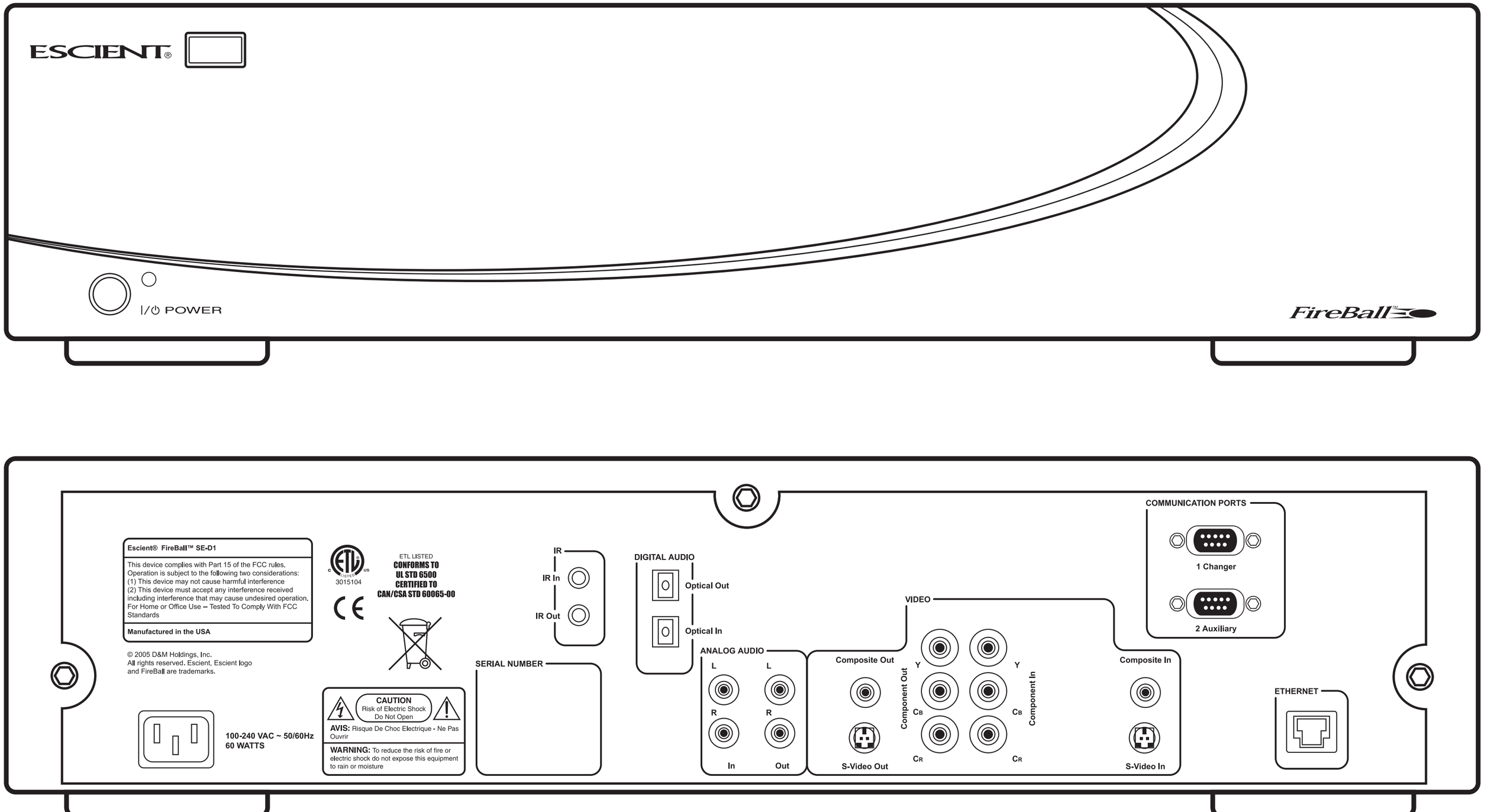
IR Remote RC6 Mode 6A Key Codes:

Remote Key Label	**RC6 Key Code**
Power	0Fh
DVD	-----
RCV	-----
FB3	-----
TV	-----
FB1	-----
FB2	-----
CBL	-----
FB4	-----
Music	2Ch
Radio	2Ah
Movies	26h
Home	34h
Rewind/ Backspace	20h
Play	21h
Fast Forward/ Space	22h
Skip Reverse	29h
Pause	25h
Skip Forward	28h
Record	23h
Stop	24h
Guide	14h
Exit/Toggle	15h
Up	16h
Down	17h
Left	18h
Right	19h
OK	1Ah
Info	1Bh
Menu/ View	1Ch
Volume Up	0Ah

Volume Down	0Bh
Last/ Options	13h
Mute	0Ch
Channel Up	0Dh
Channel Down	0Eh
Digit 1/ (./?')	01h
Digit 2/ (ABC)	02h
Digit 3 (DEF)	03h
Digit 4 (GHI)	04h
Digit 5 (JKL)	05h
Digit 6 (MNO)	06h
Digit 7 (PQRS)	07h
Digit 8 (TUV)	08h
Digit 9 (WXYZ)	09h
Digit 0 (@-*#)	00h
Input/Setup	12h
Enter	10h
Mode	11h
Prev	32h
Next	2Bh
Macro	31h
RPT	33h
Add	2Dh
Play	2Eh
Rand	2Fh

Discrete RC6 Mode 6A Key Codes:

Discrete Function	**RC6 Key Code**
Power On	41h
Power Off	42h
Normal Play Mode	43h
Repeat Track Play Mode	44h
Repeat Title Play Mode	45h
Repeat Group Play Mode	46h
Random Title Play Mode	47h
Random Group Mode	48h
View Artist	49h
View Title	4Ah
View Song	4Bh
View Cover	4Ch
Player	4Dh
Guide	4Eh
Jukebox Mode On	4Fh
Jukebox Mode Off	50h
Jukebox Play Once	51h
Jukebox Play Repeat	52h
Jukebox Randomize	53h
Jukebox Clear	54h
View Hierarchy	55h


ESCIENT®
I/⏻ POWER
FireBall™
Escient® FireBall™ SE-D1
This device complies with Part 15 of the FCC rules. Operation is subject to the following two considerations:
(1) This device may not cause harmful interference
(2) This device must accept any interference received including interference that may cause undesired operation.
For Home or Office Use – Tested To Comply With FCC Standards
Manufactured in the USA
© 2005 D&M Holdings, Inc.
All rights reserved. Escient, Escient logo and FireBall are trademarks.
3015104
ETL LISTED
CONFORMS TO UL STD 6500
CERTIFIED TO CAN/CSA STD 60065-00
100-240 VAC ~ 50/60Hz
60 WATTS
CAUTION
Risk of Electric Shock
Do Not Open
AVIS: Risque De Choc Electrique - Ne Pas Ouvrir
WARNING: To reduce the risk of fire or electric shock do not expose this equipment to rain or moisture
IR
IR In
IR Out
SERIAL NUMBER
DIGITAL AUDIO
Optical Out
Optical In
ANALOG AUDIO
L
R
In
Out
VIDEO
Composite Out
S-Video Out
Component Out
Y
CB
CR
Component In
Composite In
S-Video In
COMMUNICATION PORTS
1 Changer
2 Auxiliary
ETHERNET

ESCIENT

ESCIENT®

PRODUCTS FOR THE HUMAN INTERFACE.

ADDING DISC INFORMATION FOR UNKNOWN DISCS

A Guide to Editing Disc Information for DVDs and CDs

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Why do I have Unknown Discs?

No, you didn't buy 5 copies of the new action movie "Unknown DVD". There are several reasons why you may have discs listed as "Unknown" in your Movies and/or Music Guide. Before we explain why, we must understand how discs are automatically looked up.

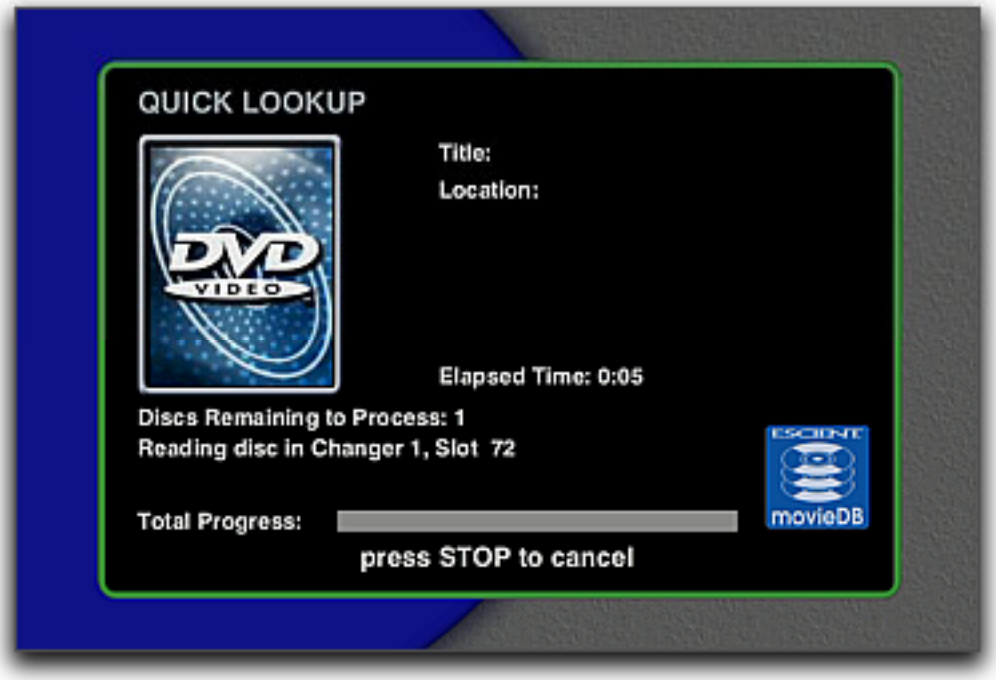
First Things First

The most important FireBall requirement for the automatic disc lookup feature is the presence of a working Internet connection. Without an active Internet connection, FireBall can't contact the online Gracenote CDDB™ database or the Escient MovieDB™ database, where information is stored for millions of music and movie titles.

This document assumes that you have a working dialup or Ethernet connection to the Internet. Please refer to you User Guide and Manual, the Escient Web site, or your Escient dealer if you have questions concerning the proper configuration of your Internet connection.

Auto-Build and Quick Lookup

The Auto-Build process occurs when you initially setup your FireBall system, insert your discs into your changers, and close the changer doors. Your media library is automatically built from the discs located in your changers. You do not have to do anything once the Auto-Build process starts.



Auto-Build is sometimes called "**Quick Lookup**". As you add or remove discs from your changer, FireBall is smart enough to notice which discs were removed or added, then quickly looks-up only those discs – instead of your entire disc collection.

How Are My Discs Identified?

During the Auto-Build process, FireBall reads a small piece of information from each disc, calculates a special number called a **key**, then sends this key to the Gracenote CDDB™ (for Music discs) or to the Escient MovieDB™ (for DVDs) using your Internet connection. The CDDB and MovieDB return information about the disc to your FireBall. FireBall adds this information to your local media library and displays it on your TV.

Causes of Unknown Discs

The five possible causes for Unknown discs are as follows:

1) Unsupported Disc Format

Only the following disc formats are valid. Any other discs formats will not be looked up, even if the changer supports them (i.e. VideoCD, MP3, PhotoCD, etc…)

- Standard Audio CDs (Red Book)
- Enhanced CDs (Blue Book – audio session only)
- CD-R/CD-RW (Orange Book – when exact duplicate of a Red Book CD)
- SACD (only if the changer is set to CD and the SACD is a Hybrid-CD)
- DVD-Video
- DVD-Audio
- DVD-R/DVD-RW (when exact duplicate of a DVD-Video disc)

2) Dirty or Damaged Discs

Discs can get dirty and you can damage them. Usually the changer won't even read a dirty or damaged disc. If it can read it, the key data may not be correct and the disc can not be identified correctly.

3) Discs Inserted Incorrectly

If you insert your discs facing the wrong way in your changer, they will not be read and will appear as Unknown or missing.

4) Recent Releases

Gracenote CDDB™ and Escient's MovieDB™ are updated regularly, however you may find that a new release is not yet in the database and will not be correctly identified.

5) Different Version, Release, Edition, or Pressing

The record labels and movie studios often release more than 1 version of a CD or DVD. For example, there are often two versions of a movie released on DVD (wide screen and standard 4:3) as well as single and multi-disc sets, special editions, director's cuts, and bonus material discs.

The Gracenote CDDB™ and Escient MovieDB™ attempt to cover each possible version, release, edition, and pressing, but there are times when a certain release is not available everywhere and you will find these discs being marked at Unknown, even though it is a popular title.

Automatically Adding Disc Information

Automatic Disc Information Summary

There are 5 methods for automatically looking up disc information. These methods are described in detail below.

Method	Description
Quick Lookup	Lookup new or removed discs
Lookup Range	Lookup a contiguous range of discs
Lookup All	Lookup all discs in all changers
Get Music/Movie Info	Lookup unknown Music or Movie titles
Lookup This Disc	Lookup a single disc

Quick Lookup, Lookup Range, and Lookup All

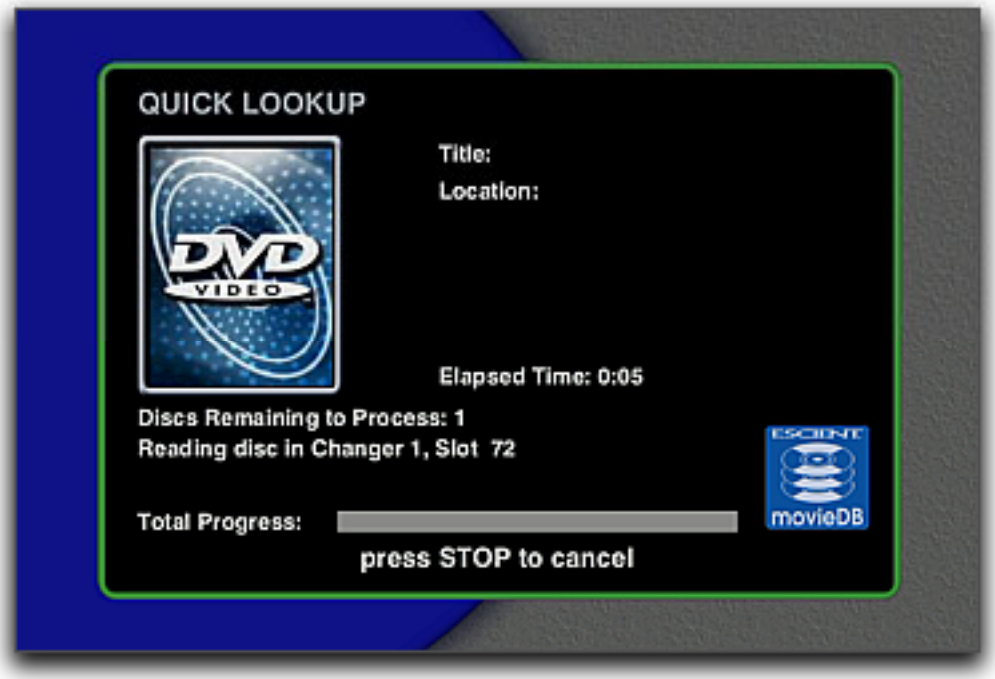
These automatic methods of adding disc information are available from the **Setup/Changer Management** menu and automatically lookup disc information based on the disc's unique key.

WARNING

These automatic lookup methods will lookup and download all information for each of the selected discs. Any information you manually entered will be replaced with the data downloaded from the Gracenote CDDB™ and Escient MovieDB™.

Quick Lookup

Performs a disc lookup for each slot in each changer that has changed since the last time a lookup was performed. FireBall keeps a map of each slot in each changer and will lookup each disc based on which slots have changed status from occupied to empty or empty to occupied.



NOTE

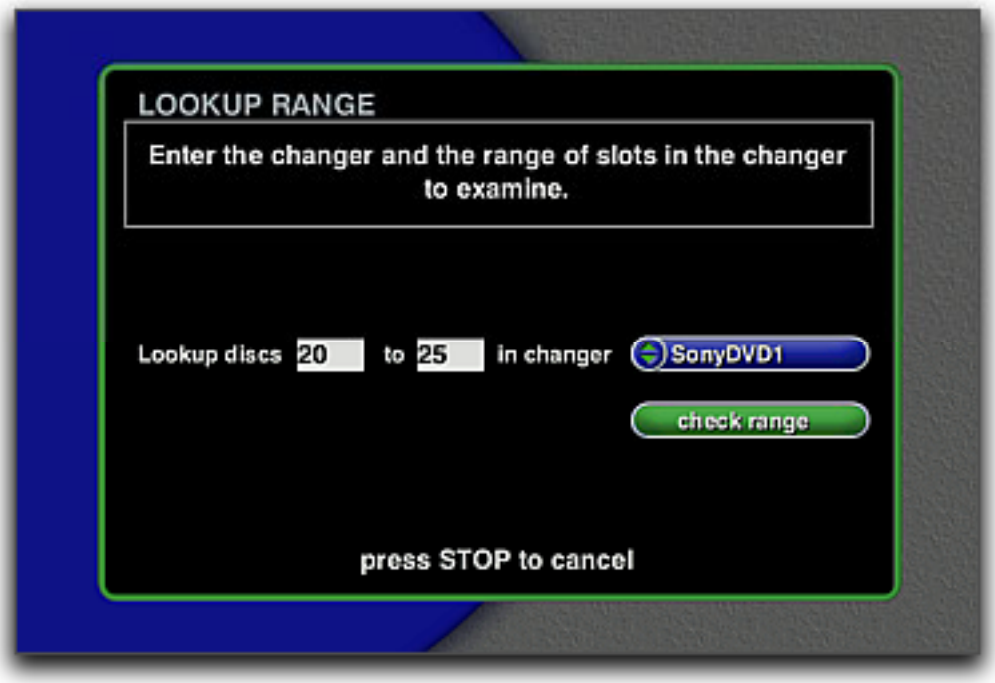
Do not remove discs from a changer then place different discs back into the same slots in one step. If the slots are still occupied, but with different discs, FireBall will not know that you changed them.

If you want to add and remove discs without closing the changer door and performing a Quick Lookup, use previously empty slots for the new discs and leave the slots empty for discs you are removing.

If you don't have free slots to add the new discs, first remove your discs, close the changer door, and wait for Quick Lookup to complete (FireBall will mark the newly vacant slots as empty). Open the door and insert the new discs into the same empty slots. Close the door and the new discs will be looked up.

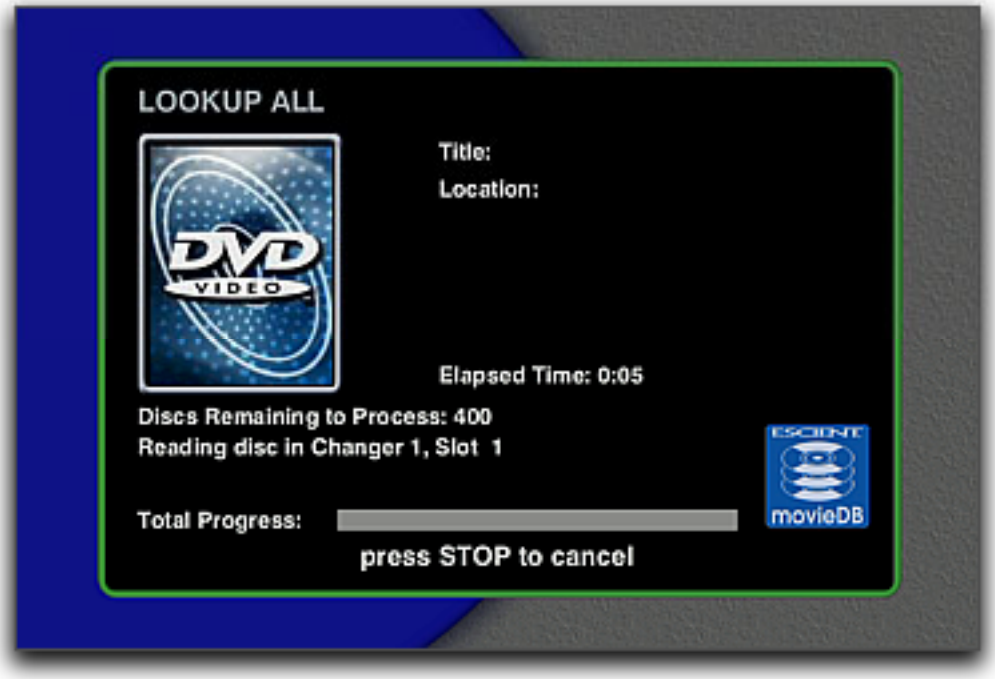
Lookup Range

Allows you to specify a range of slots in a single changer to lookup automatically. You enter the starting slot number, ending slot number, and select the changer from the spin control. FireBall will read each disc in the selected range and perform an automatic lookup for each.


LOOKUP RANGE
Enter the changer and the range of slots in the changer to examine.
Lookup discs 20 to 25 in changer SonyDVD1
check range
press STOP to cancel

Lookup All

Performs a complete lookup of all discs in all changers, completely replacing your media library with the original data from the Gracenote CDDB™ and Escient MovieDB™ servers. All manually entered data is replaced.

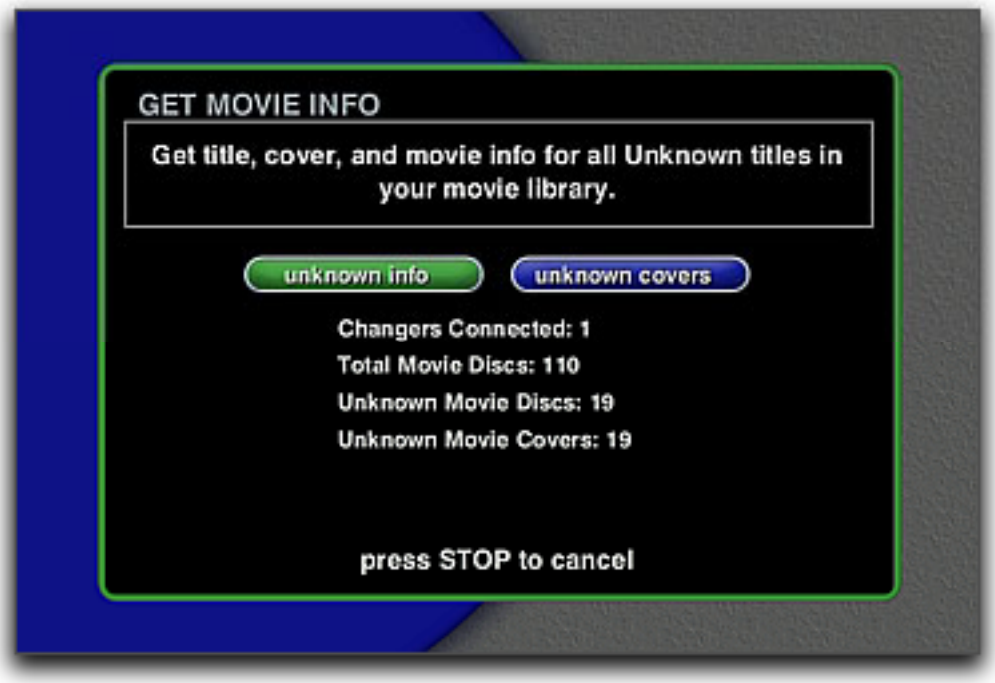


Get Movie/Music Info

The Get Movie Info and Get Music Info features are available via the Options Menu when in the Movies Guide or Player and the Music Guide or Player.

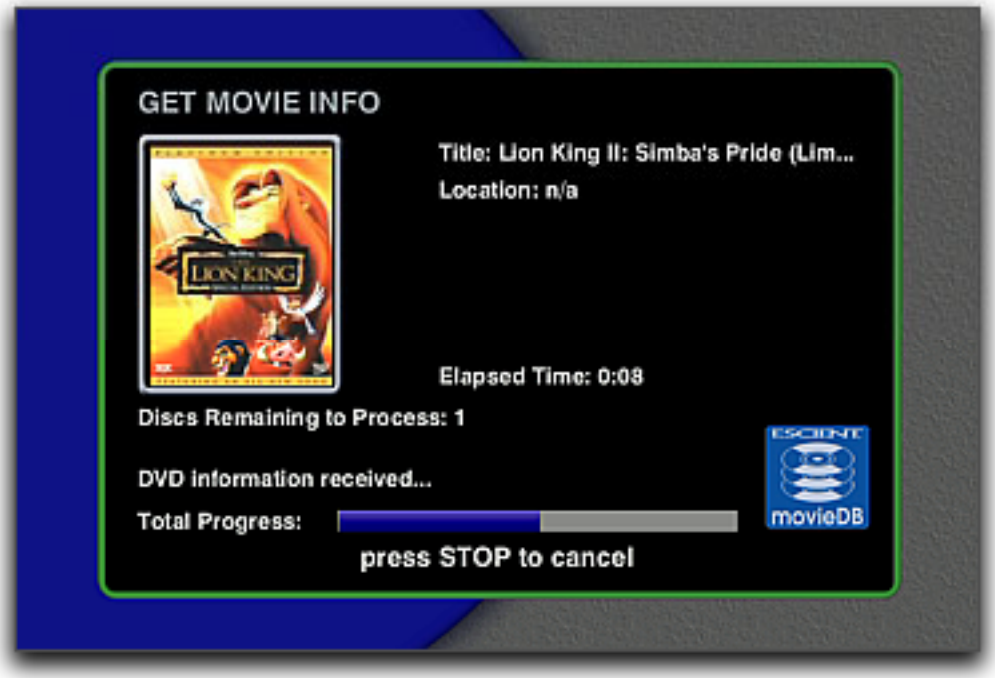
Get Music Info will perform an automatic lookup of each Unknown disc in the Music library. This is useful if you have previously added new releases which weren't recognized, or did not have an Internet connection when you recorded tracks to FireBall.

Get Movie Info provides two features: **Unknown Info** and **Unknown Covers**.


GET MOVIE INFO
Get title, cover, and movie info for all Unknown titles in your movie library.
unknown info
unknown covers
Changers Connected: 1
Total Movie Discs: 110
Unknown Movie Discs: 19
Unknown Movie Covers: 19
press STOP to cancel

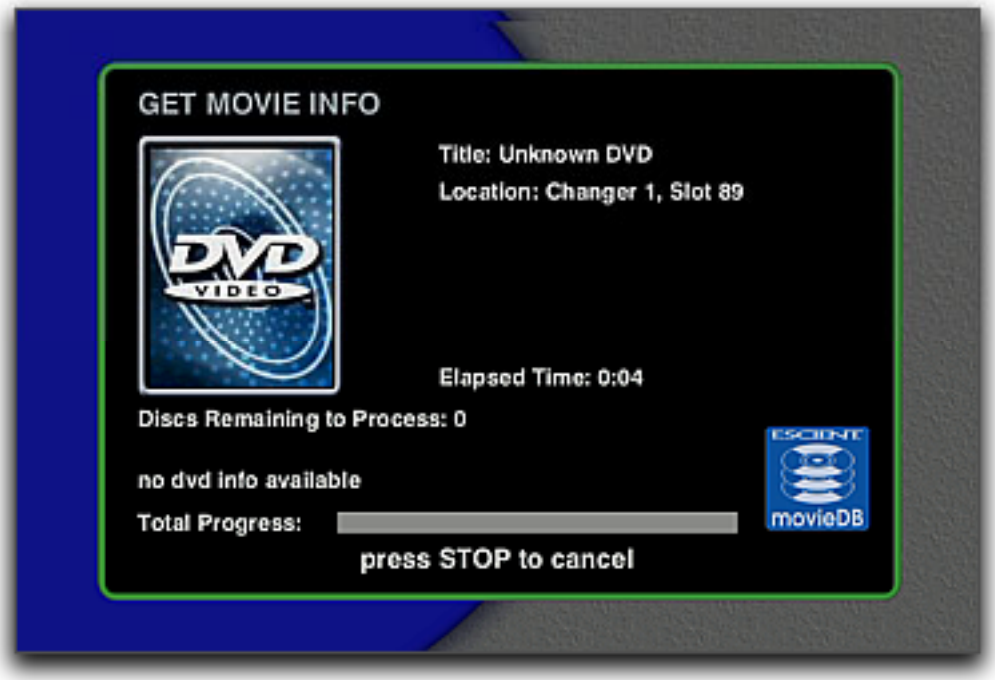
Unknown Info will lookup all information for the Unknown movie discs in your changer.

Unknown Covers will lookup the cover art images for all movies that don't have original cover art.



Lookup This Disc

Lookup this Disc is available when editing a single disc and you want to lookup information for only this one disc. Lookup This Disc uses the unique Key from the disc to identify the disc. The Lookup This Disc feature is available from the Options/Edit Disc dialog screen and uses the Get Movie Info screen.



When disc information is returned for the disc, the Edit Disc Information screen displays the new data (if available). This gives you the opportunity to CANCEL or SAVE the new information with the Disc.

Manually Adding Disc Information

There are several methods for manually adding your own disc information should the Gracenote CDDB™ or Escient MovieDB™ return incorrect or no information at all for discs in your collection.

We will describe the tools available within FireBall to help you identify, add, and edit disc information for your Unknown Movie and Music titles.

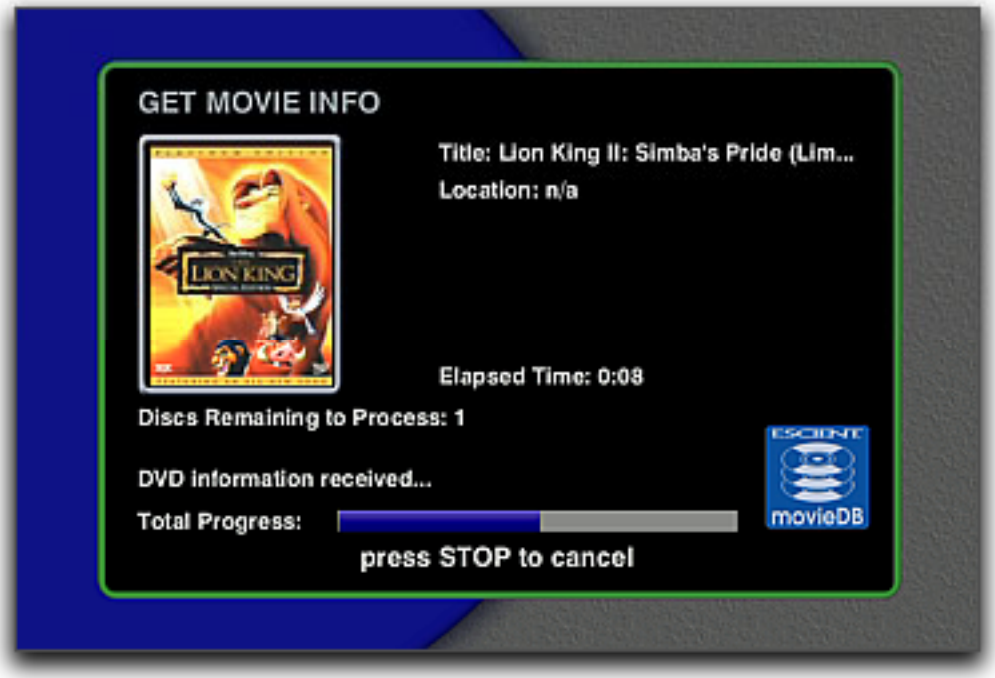
Movies

Search For Movie

The most useful tool for manually adding disc information to an Unknown Movie title is Search For Movie. Search For Movie allows you to enter a movie title or portion of a movie title then search the Escient MovieDB™. Here's how it works:

- Highlight the Unknown DVD title in the Movies Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Disc*** menu item.
- Navigate to the ***Search For Movie*** button and press SELECT.
- You should see the following dialog:

- Press the PLAY key on the remote to clear the current title.
- Enter the title of the movie using the remote control or wireless keyboard
- Highlight the Search button and press SELECT to start the search.
- The Get Movie Info screen displays the progress of the search:



- If 1 match is found, the information will be displayed in the Edit Disc Info screen.
- If no matches are found, the previous information is displayed in the Edit Disc Info screen.
- If there is more than 1 match the Multiple Match dialog screen is displayed where you can highlight each title to view it's cover art. When you decide which title is the correct title, press the SELECT key and the Edit Disc Info screen will display the information for the selected disc.

MULTIPLE MATCHES FOUND
please select one of these titles:
Shrek - Special Edition (Disc 1)
Shrek - Special Edition (Disc 2) (DTS)
press SELECT to save, STOP to cancel

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

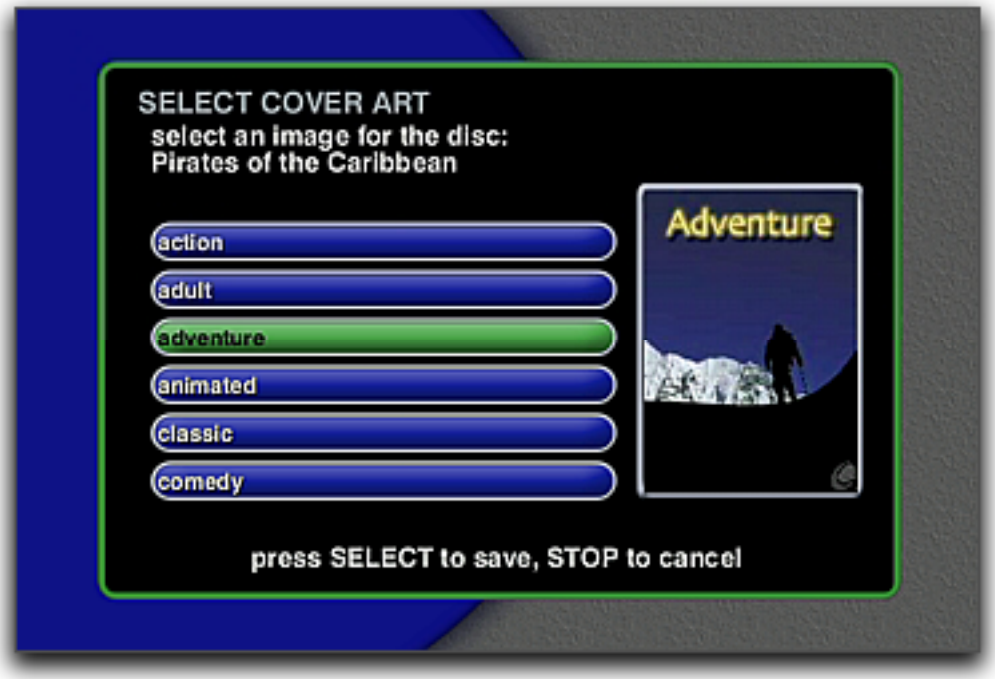
Tips for Using Search for Movie

- If you don't get an exact match for the movie you are searching, try entering different parts of the title. For example, if you have the movie "The Lion King", try searching for "Lion King," (notice the comma) or "Lion King". If you are have the movie "Star Wars Episode I: The Phantom Menace", try entering just "Phantom Menace".
- Try removing indefinite and definite articles "a", "an", and "the" from movie titles.
- Upper and lowercase don't matter. You can use all lowercase letters or all uppercase letters in you title. You will get the same results.
- Try to use the actual movie title as you would see it advertised on the marquee. Leave off information about the release, edition, or any other "special" name added to the movie title. For example: use "Monster's Inc." instead of "Monster's Inc. – Collectors Edition".

Select Cover

The Select Cover tool allows you to manually select a cover to attach to any Title in your Movies guide.

- Highlight any DVD title in the Movies Guide.
- Press OPTION, then navigate and SELECT the ***Select Cover*** menu item.
- You should see the following dialog:



All titles are listed alphabetically in the Select Cover dialog screen, including the Escient MovieDB™ default genre covers (listed at the bottom), custom covers already downloaded from the Escient MovieDB™ and any user covers you transferred to your FireBall.

Press the RECORD key on the remote or keyboard to save the selected cover with the current movie or press STOP to cancel and discard the current selection.

NOTE

Please refer to the ***Adding Your Own Cover Art Images*** support document available on the Escient web site for more information about how to transfer cover art images to your FireBall.

Edit Disc

If you have an Unknown disc that just isn't in the Escient MovieDB™, you can manually type information into the Edit Disc dialog. The Edit Disc Info dialog screen allows you to manually enter information for your Unknown discs and assign generic or custom cover art. Use your IR remote or keyboard to enter data into each field on the screen.

- Highlight any DVD title in the Movies Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Disc*** menu item.
- You should see the following dialog:

- Enter information describing this disc. Use the original DVD case or the Internet as a source for your data.

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

Music

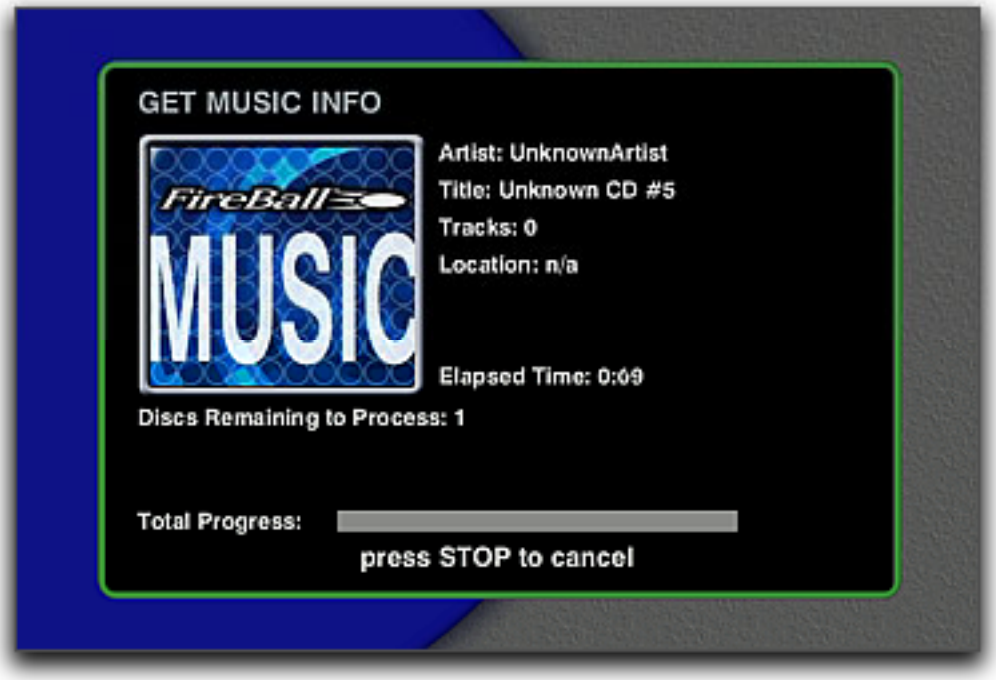
Search For Cover

Sometimes a disc is identified by the Gracenote CDDB™ but the original album art cover is not available. This is because the Gracenote CDDB™ does not contain any album covers and the Escient album art cover server may have the cover listed under a slightly different artist/title combination.

The Search for Cover tool allows you to search for the original album cover art by entering an Artist Name and Album Title. These two text strings are used to locate possible cover matches on the Escient cover server.

- Highlight any title in the Music Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Disc*** menu item.
- Navigate to the ***Search For Cover*** button and press SELECT.
- You should see the following dialog:

- Press the PLAY key on the remote if you want to clear the current artist name and enter an artist name using the remote control or wireless keyboard
- Press SELECT on the remote to advance to the album title.
- Press the PLAY key on the remote if you want to clear the current album title and enter an album title using the remote control or wireless keyboard
- Highlight the Search button and press SELECT to start the search.
- The Get Music Info screen displays the progress of the search:



- If a match is found, the new cover will be displayed in the Edit Disc Info screen.
- If no matches are found, the previous cover is displayed in the Edit Disc Info screen.

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

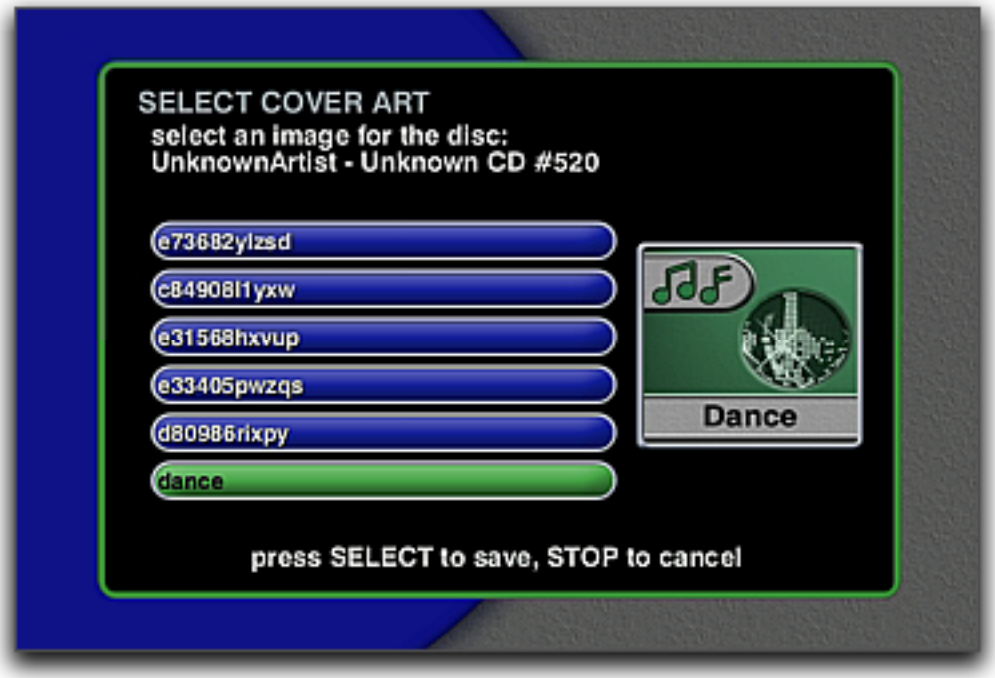
Tips for Using Search for Cover

- Try removing punctuation marks in the artist name or album title
- Remove all disc numbers, volume numbers, and years from the title
- Try removing indefinite and definite articles “a”, “an”, and “the” from artist names and album titles.

Select Cover

The Select Cover tool allows you to manually select a cover to attach to any Title in your Music guide.

- Highlight any Music title in the Music Guide.
- Press OPTION, then navigate and SELECT the ***Edit Disc*** menu item.
- Navigate to the ***Select Cover*** button and press SELECT.
- You should see the following dialog:



All titles are listed alphabetically in the Select Cover dialog screen, including the Escient MovieDB™ default genre covers, custom covers already downloaded from the Escient MovieDB™ and any user covers you transferred to your FireBall.

Press the RECORD key on the remote or keyboard to save the selected cover with the current movie or press STOP to cancel and discard the current selection.

Edit Disc

If you have an Unknown disc that just isn't in the Gracenote CDDB™ database, you can manually type information into the Edit Disc dialog. The Edit Disc Info dialog screen allows you to manually enter information for your Unknown discs and assign generic or custom cover art. Use your IR remote or keyboard to enter data into each field on the screen.

- Highlight any Music title in the Music Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Disc*** menu item.
- You should see the following dialog:

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

Edit Tracks

Edit Tracks allows you to enter track names for every track found on the current Music title.

- Highlight any Music title in the Music Guide.
- Press OPTION, then navigate down and SELECT the ***Edit Tracks*** menu item.
- You should see the following dialog:

EDIT TRACKS
UnknownArtist - Unknown CD #520
1 - Track 1
2 - Track 2
3 - Track 3
4 - Track 4
5 - Track 5
6 - Track 6
press RECORD to save, STOP to cancel

- Enter the name of each track using the IR remote or keyboard.
- Press SELECT to save the current track name and advance to the next track name.

Press the RECORD key on the remote or keyboard to save the information displayed in the Edit Disc Info screen or press STOP to cancel and discard the current information.

ESCIENT

ESCIENT®

PRODUCTS FOR THE HUMAN INTERFACE.

ADDING INTERNET RADIO STATIONS

How to add your own Internet radio stations to FireBall's Radio Guide

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Adding New Internet Radio Stations

Your FireBall is able to deliver a variety of Internet radio station programming through its connection to the Internet. Escient's OpenGlobe Internet radio service provides a large variety of stations including Radio Free Virgin and various other stations from across the country. These stations can be selected for playback in the Radio Guide view.

In order to increase your listening enjoyment, FireBall also allows you to add new Internet Radio to the Radio Guide for playback. The FireBall will tune stations that broadcast in the Microsoft WMA V2, V7 and V8 formats at bit rates up to 192kpbs. A complete list of the supported bit rates is listed in Appendix A. The procedure below will give you some examples of how to find new stations and add them to the Radio Guide.

Locate New Stations

Internet Radio is a fairly new form of radio broadcasting which all terrestrial radio stations have not yet adopted. Please keep in mind that the station you are interested in may not broadcast over the Internet, or it may use a proprietary interface only accessible from a PC. You can locate Internet radio stations using various Internet Radio web sites that can be accessed using the Internet Browser on a PC. One example is Radio-Locator. Simply, go to **http://www.radio-locator.com** and type in the station call letters, zip code, State code, Genre, or Country in the fields provided and press **GO**. The radio locator will return information about the station or the area that you requested. Click on the (i) icon in order to find the detailed information about the specific station. From the Information page, the radio locator will list an Internet address for the Audio Stream location. If this address ends with a **.asx** or **.asf** file extension, then the FireBall may be able to playback this station.

Examples:

WSM-AM 650 kHz
Nashville, Tennessee
"America's Country Music Station"
Audio Feed: mms://mmslb.eonstreams.com/wsmam1.asf

KFOG-FM 104.5 MHz
San Francisco, California
"K-Fog Worldclassrock 104.5"
Audio Feed: http://www.streamaudio.com/stations/asx/kfog_fm.asx

Add The Stations To The Guide

While in the Radio mode, press the Menu button on the remote, and select "New Station" from the list of options. When prompted as to what station you would like to add, select "Internet". Using the remote control or a USB keyboard, type in the information about the station in the fields provided. The Audio Feed information goes into the field titled "**URL"**. Once completed, press the record button to save this information. Your new radio station is now available to select in the Radio Guide!

Listen to the New Stations

Select the station to playback while in the Radio Guide by either pressing the Select button, or the Play button while the station is highlighted. The station will begin playback by first locating the station, connecting to the server, buffering the data, then playing. If the station is not available, a message will be displayed on the screen indicating that the "Station Is Not Available".

Uh oh, "Station Not Available"?

There are several reasons why an Internet radio station is not available. At any time, the radio broadcaster may decide to no longer stream over the Internet, or the radio broadcaster may also select to change formats and no longer deliver a stream that can be played back by the FireBall. Escient will work hard to guarantee the quality of the stations that are provided in the Radio Guide, however, there can be no guarantee to those station created by the users.

FireBall Supported Internet Radio Formats and Bit Rates

The following table lists the specifications for each type of supported WMA radio stream.

WMA-Audio V2, V7 and V8		
Bitrate	Sampling Frequency	Channels
5Kbps	8KHz	Mono
6Kbps	8KHz	Mono
8Kbps	8KHz	Mono
	11.025KHz	Mono
10Kbps	11.025KHz	Mono
	16KHz	Mono
12Kbps	16KHz	Mono
	8KHz	Stereo
16Kbps	16KHz	Mono
		Stereo
	22.05KHz	Mono
20Kbps	16KHz	Stereo
	22.05KHz	Mono
		Stereo
	32KHz	Mono
22Kbps	22.05KHz	Stereo
	32KHz	Stereo
32Kbps	22.05KHz	Stereo
	32KHz	Stereo
	44.1KHz	Mono
		Stereo
36kbps	32KHz	Stereo
40Kbps	32KHz	Stereo
44kbps	32 Khz	Stereo
48Kbps	32KHz	Stereo

	44.1KHz	Mono
		Stereo
64Kbps	32 Khz	Stereo
	44.1KHz	Stereo
80Kbps	44.1KHz	Stereo
96Kbps	44.1KHz	Stereo
128Kbps	44.1KHz	Stereo
	48KHz	Stereo
160Kbps	44.1KHz	Stereo
	48KHz	Stereo
192Kbps	44.1KHz	Stereo
	48KHz	Stereo

ESCIENT

ESCIENT®

PRODUCTS FOR THE HUMAN INTERFACE.

FireBall Client-Server Installation Guide

A Guide to Installing Multiple FireBall Products

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

FireBall Client Server Products

Servers

A FireBall Server is a Fireball media management system that is capable of "serving" media to other FireBalls over a network. Currently there are three FireBall products which can serve media to other FireBalls.

- FireBall (40GB with HPNA networking)
- FireBall E-40
- FireBall E-120

Clients

A FireBall Client is a FireBall that can play media from a FireBall Server over a network. Currently there are three different FireBall products that can play media from FireBall servers:

- FireBall (40GB with HPNA networking)
- FireBall MP-100
- FireBall DVDM-100

Client Server Combinations

The original FireBall is a client and a server at the same time. It uses a peer-to-peer client and server networking scheme that allows 2 or more FireBalls to automatically synchronize their MP3 music libraries so that the contents of both the client and server appear in the Music Guides of each FireBall. You can create a rather large network providing each room access to the combined FireBall music library.

The FireBall-E servers are only servers and can not act as clients to other FireBall servers.

The newer FireBall clients (the MP and DVDM) use a standard client-server networking scheme. The following table indicates which servers are compatible with which clients.

Server / Client	FireBall	FireBall-E 40/120
FireBall	Yes	No
FireBall-E 40/120	No	No
FireBall-MP	Yes	Yes
FireBall DVDM-100	Yes	Yes

Limitations

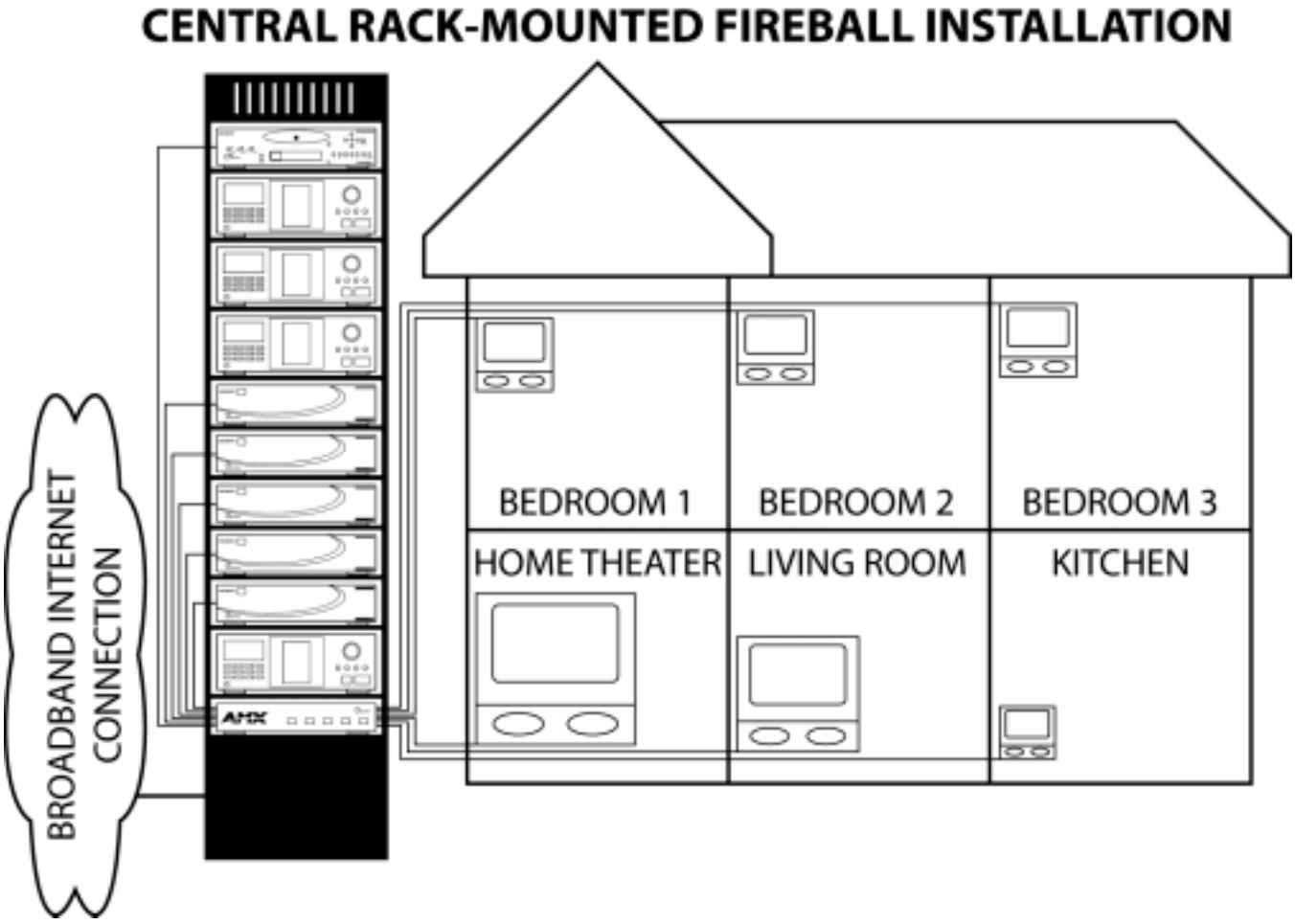
- Client-Server networking is limited to the same local subnet. You can not stream over the Internet.

- Only MP3 audio files can be streamed to clients.You can not stream WAV files, CDs from the internal drive, or from CDs located in external changers.
- Playlists that contain only MP3s will be available on the clients.
- Playlists that contain MP3s and non-streamable tracks will NOT appear on the clients.
- You may have an unlimited number of clients on the network, but you can only stream to 4 clients simultaneously.
- Movies can not be streamed.
- Internet Radio can not be streamed (but it is available on all standalone products).

Locating the FireBall Clients and Servers

Central

If you locate your FireBall clients and servers in a central location such as an equipment or utility room, you will need to use a third party audio/video distribution system to deliver sound and picture to each room. This type of installation allows great flexibility for delivering music, movie, and Internet radio to every room of the home or office and provides the professional installer with tools for almost any installation.

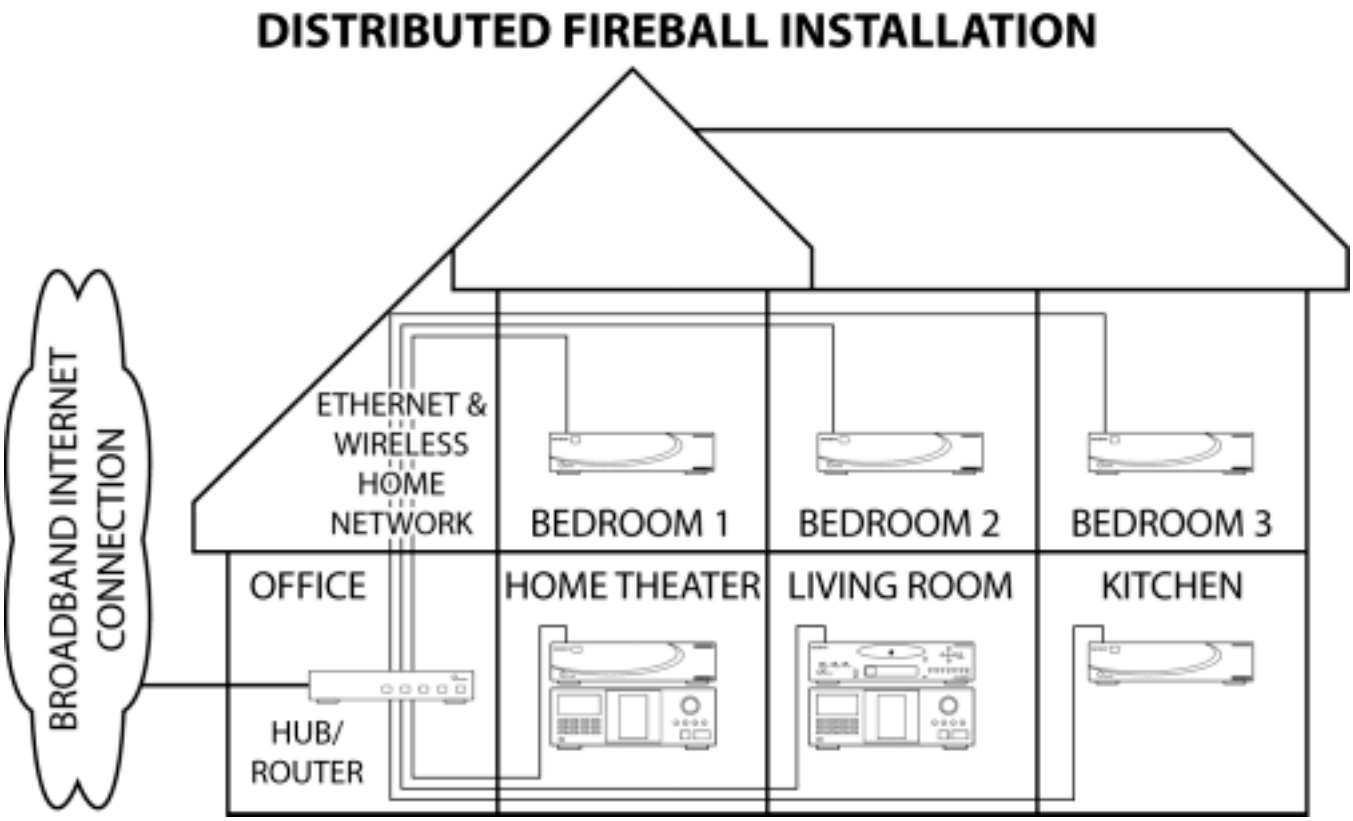


FireBall is built from the ground up with many features that allow you to centrally locate and remotely control your FireBall clients and servers, such as:

- Direct IR input
- Two way serial control over RS-232
- Two way serial control over ethernet
- Wireless IR remote and Keyboard options
- Support for 4 different IR banks (4 IR zones)
- Templates for integration into many third party wired and wireless IR distribution systems
- Philips and Marantz Pronto remote control templates

Distributed

A distributed FireBall installation means that your FireBall Servers and Clients are physically distributed or located in different rooms. Distributed FireBalls communicate over a wired or wireless network to share access to your media.

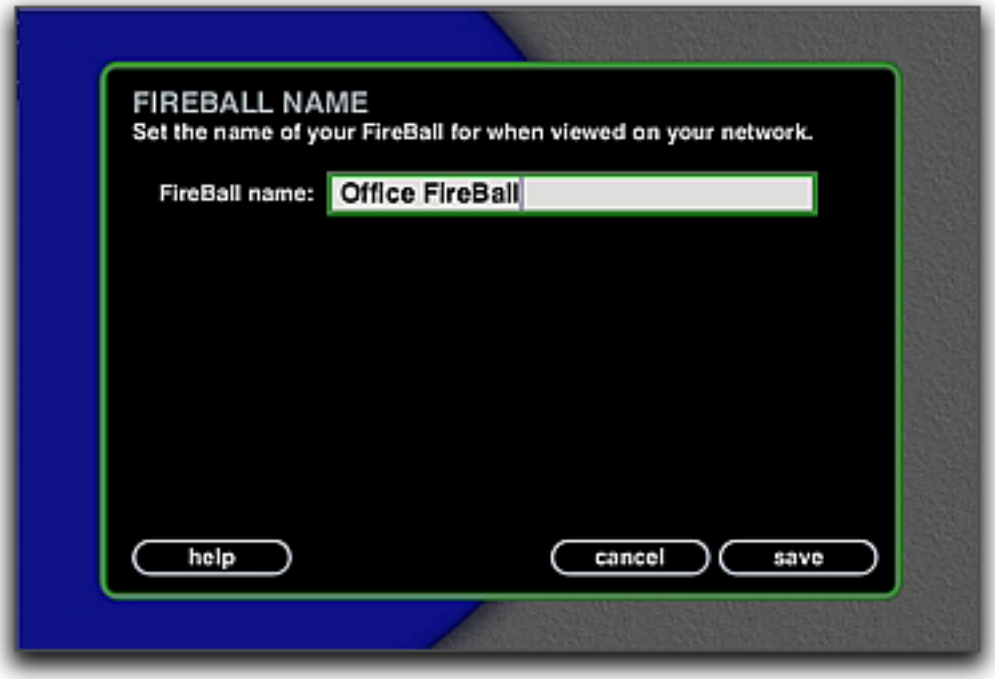


The biggest advantage of a distributed client-server system over a central system is that everything you need is built into FireBall. Networking, zoned IR, independent high-quality audio and video feeds, as well as support for an unlimited number of rooms or zones using standard ethernet wiring. (Note: only 4 clients can stream from the same server at one time).

Configuring a FireBall Server

Every FireBall capable of server functions is automatically enabled to server MP3 audio streams whenever it is plugged in and properly configured for your network.

It is recommended that you give each of your FireBall servers a unique name that describes it's location using the **FireBall Name** screen which can be accessed from **Setup/Internet Configuration/FireBall Name**. Names like "Living Room", "Home Theater", "My Music Server" are all good examples.



Configuring a FireBall Client

Networking

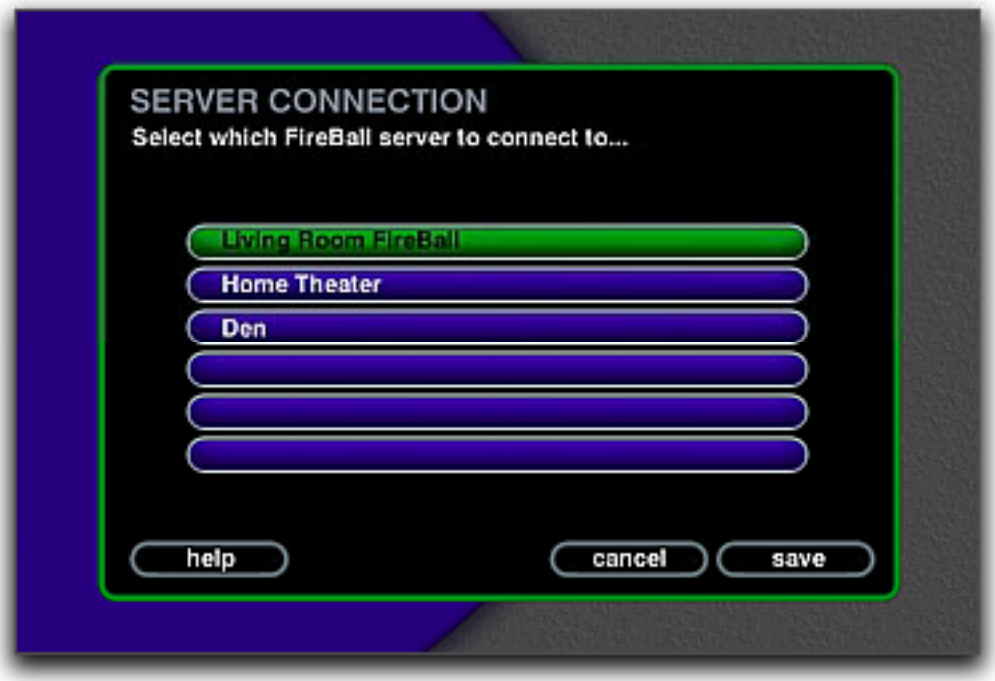
Each FireBall client must be on the same network as the server. This document will assume that you have properly connected your FireBall client to the same network as your FireBall server.

Please refer to the ***HomeNetworkingPrimer*** support document on the Escient web site for more information about home networking.

Server Selection

FireBall clients will automatically select the first server it sees on the network and connect to it upon startup.

If you have more than one server on your network, you can manually select a different server using the **Server Connection** screen which can be accessed from **Setup/Internet Configuration/Server Connection**.



The Server Connection screen displays a list of FireBall Servers found on your network by their default or user defined “FireBall Name”.

Once you select a server and save your selection, press MUSIC to view the Music Guide on the client. In a few moments, the Music Guide will display the contents of the FireBall server. You can then select and play anything from the Music Guide just as you would from a single FireBall.

ESCIENT

ESCIENT®

PRODUCTS FOR THE HUMAN INTERFACE.

HOME NETWORKING PRIMER

An overview of the different types of home networks

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Home Networking F.A.Q. (Frequently Asked Questions)

Q: What is Home Networking?
A: Home networking refers to technology that connects computers and other electronic devices for the purpose of sharing audio, video, peripherals, or a broadband Internet connection.

Q: How much does it cost?
A: Basic networking (linking PCs to share a printer) costs about $50 for Ethernet cards and cables. More elaborate setups to split a broadband connection cost more. Wireless and Powerline networking products are about two times more expensive but are somewhat easier to set up and more convenient.

Q: Do I really need a home network?
A: For households with more than one PC, a simple home network is worth the expense. Rather than buy a dedicated peripheral for each PC, one can be shared. Even better, but more complicated to set up, is splitting a broadband connection among several PCs.

Q: Can I mix and match networking products from different vendors?
A: Yes, but unless you're technically proficient, this isn't advised, particularly for newer wireless networks. That's because there are competing standards for wireless, and they don't all communicate correctly. Even products that support the same standard, such as 802.11b, don't always work together smoothly.

Q: Who makes networking products?
A: Several companies make wired and wireless network products for the home. Some of the most prominent are:

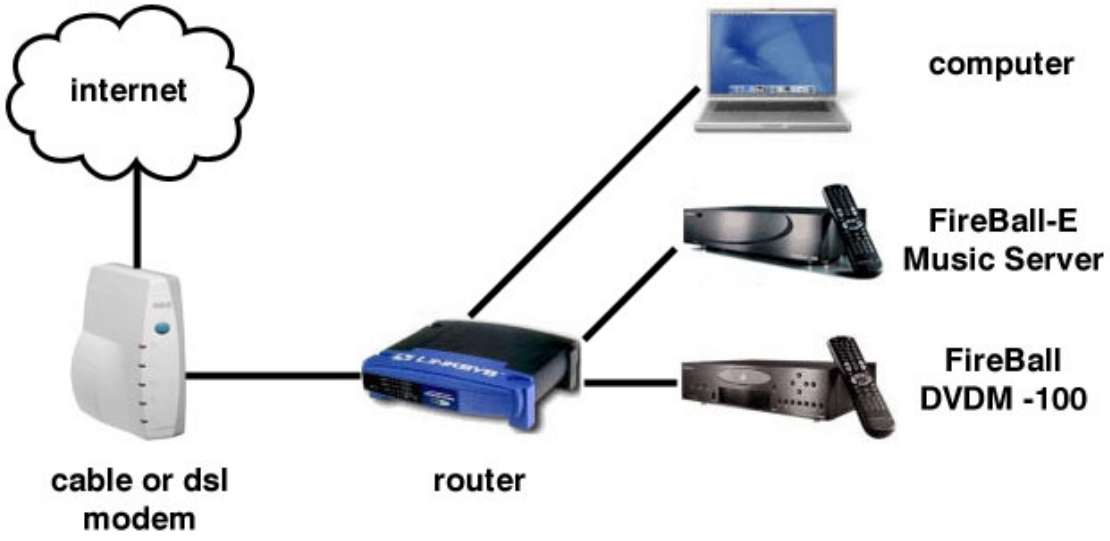
- Linksys
- 3Com
- Intel
- D-Link
- NetGear
- Apple Computer
- Cisco
- Belkin

Types of Networks

Ethernet: 10/100Mbps

The most popular network method because of the low price of the network cards, reliability and speed; but it can be a pain to run the wires through your home. Ethernet networking is built into most modern computers and the current Escient FireBall product line. There are many companies who provide ethernet networking products and they are available at any computer or electronics retailer.

Here is a sample Ethernet Network with a cable or dsl modem connection to the Internet. A "Router" is used to connect multiple Ethernet Devices (including a FireBall-E Music Server and a FireBall DVDM-100) to share a single broadband Internet connection. Each device needs to be connected to the router using an ethernet cable.



Sample Ethernet Network

Powerline Networking

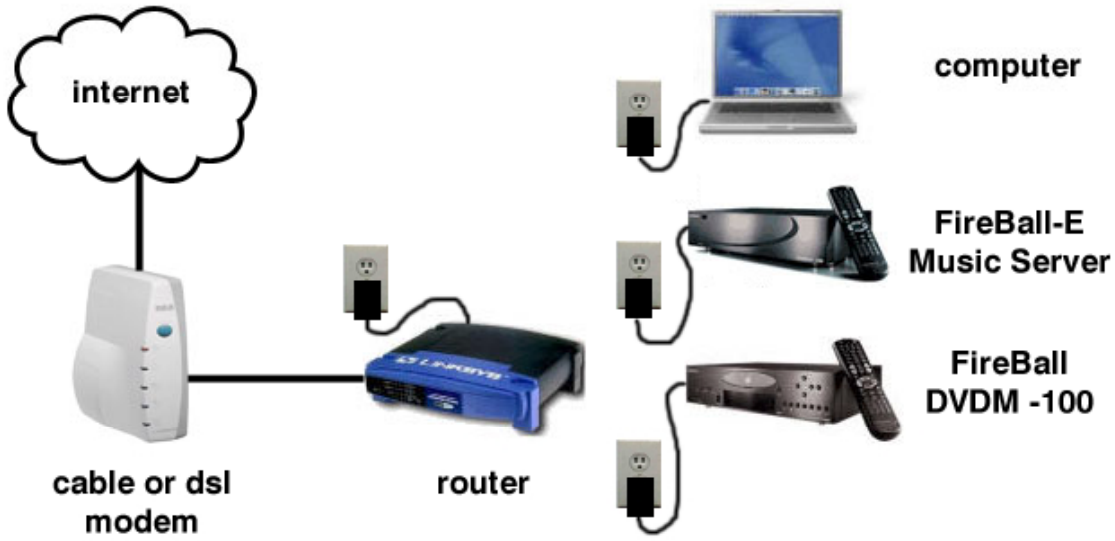
Powerline Networking (also called HomePlug Networking) allows easy network setup across existing 110V electrical outlets. It works with 2 & 3 prong standard 110 volt electrical outlets, transfers data at speeds up to 14 mbps (faster than 802.11b wireless) and it is compatible with 10Mbps or 10/100 Mbps ethernet products.

Powerline adapters are available from the following companies:

- Asoka Powerline
- Belkin
- Corinex Powernet
- DLink

- Gigafast Ethernet
- IOGear
- Linksys
- Netgear
- Phonex Broadband
- Siemens
- ST&T Corporation
- Telkonet

Here is a sample Powerline Network with a cable or dsl modem connection to the Internet. Again, a “Router” is used to connect multiple Powerline Devices to share a single broadband Internet connection. Ethernet cables are used to connect the network devices to the Powerline adapters. You will also need a Powerline adapter at the Router location so that the Powerline signals can be connected to the rest of the network and access Internet connection.



Sample Powerline Network

Wireless 802.11b: 11 Mbps

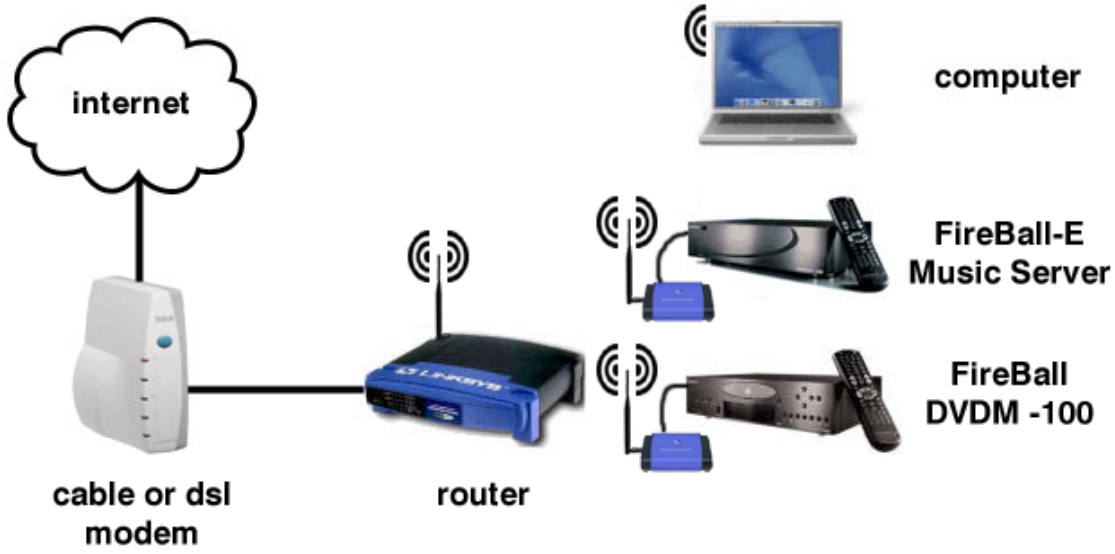
802.11b is now the standard for wireless networking in both the home and business. It has become inexpensive, has good speed but may not be appropriate for some secure communications.

Wireless 802.11g: 22/54 Mbps

An upgrade to 802.11b, the 802.11g standard doubles the speed of 802.11b while retaining compatibility.

Here is a sample wireless network where the FireBall=E Music Server and FireBall DVDM-100 are each connected to an Ethernet to Wireless adapter. The computer has built-in wireless connectivity and the router is a hybrid router/wireless access point. The wireless devices are

able to access the shared broadband Internet connection because the router/access point provides the “bridge” between the wireless and wired networks.



Sample 802.11 Wireless Network

HomePNA 2.0 (Phone Line): 10Mbps

HPNA, PhoneLine or HomePNA networking works over the existing copper telephone wires in your home without interfering with voice or DSL communications. HomePNA 3.0 will push the speed up to 100Mbps when it comes out.

Escient FireBall-H products use HomePNA networking.

Alternative Networking Technologies

Alternative networking technologies are often used to supplement a primary network. They are not as popular as the aforementioned networks, but are still available. The can be 'bridged' to other networks to create a single integrated network. You can buy different network adapters to ‘bridge’ or connect one type of network to another.

Ethernet: Gigabit - 1000TX

The fastest network technology available to the home or small business, gigabit ethernet comes built in to most Mac systems now. As the name suggests, gigabit ethernet runs at 1000Mbps

Wireless 802.11a: 54 Mbps

A new standard for wireless ethernet, 802.11a is incompatible with 802.11b and g. It does however offer amazing speeds for a wireless network, but is not as popular as 802.11g

Firewire Networking - 400Mbps

Modern operating systems now support networking over firewire cables. Most appropriate for short distances, firewire is FAST and inexpensive to install. Great for transferring huge video files between computers! 800Mbps firewire is also available on new Mac systems.

Bluetooth

A new ‘personal’ wireless networking technology, Bluetooth has recently made an appearance. It is easy to implement and will be VERY inexpensive soon. Because of its low speed (1.5Mbps) it is not appropriate as a replacement for other networks but IS valuable for connecting peripherals.

Wireless HomeRF 2.0: 10Mbps

Developed to compete with 802.11b, HomeRF made a brief appearance and died off. Siemens and Proxim were the main supporters.

Ethernet Networking

Ethernet is the most popular and considered the networking topology standard for most computer connections. There have been many kinds of Ethernet, but the most popular is 10/100Mbps running over copper twisted pair wires. 100Mbps Ethernet is also called 100baseT and Fast Ethernet.

All current Escient products support built-in Ethernet networking.

Note: Older Ethernet standards ran on COAX cable and were referred to as 10base2 Thin Ethernet and 10base5 Thick Ethernet. Some hubs still have a coax connector to bridge together twisted pair and Thin Ethernet networks.

A newer Ethernet standard called Gigabit Ethernet or 1000baseT also can run over copper wire but hubs ands switches are VERY expensive.

10/100 Ethernet

Connections:

Connections between 10/100 Ethernet adapters are made using cables that run to an Ethernet HUB or Switch. Hubs electrically connect your computers together and switches act like traffic cops making your network more efficient.

When only two computers are present. A special kind of Ethernet cable can be used called a “CROSSOVER cable.

Cables:

10/100 Ethernet cables have 8 wires, of which 4 are used for data. The other wires are twisted around the data lines for electrical stability and resistance to electrical interference. The cables end in RJ-45 connectors that resemble large telephone line connectors.

Two kinds of wiring schemes are available for Ethernet cables. Patch cables and Crossover cables. Crossover cables are special because with a single cable, two computers can be directly connected together without a hub or switch. If a cable does not say crossover, it is a standard patch cable. If you are connecting computers to a hub or switch, you need patch cables.

There are also different grades of cable quality. The most common are CAT5, CAT5e and CAT6. CAT5 is good for most purposes and can transfer data at 100Mbps. CAT5e is rated for 200Mbps and CAT6 is rated for gigabit Ethernet. Run CAT5e whenever possible because there is usually not a cost difference from CAT5 if you look hard enough.

Maximum distances:

For all twisted pair Ethernet, 100Meters is your maximum distance.

Ethernet to Fiber

Ethernet to Fiber media converters are starting to come down in price - they can be found for under $150. When 100Meters is not enough distance, an Ethernet to fiber media converter can

be placed on each end making the maximum distance something like 40Km. Another use for fiber is electrical insulation. Some people like to run cables underground between homes. If you run CAT5 cable, the homes have different 'ground potentials' and you will burn out network card during any electrical storm. The solution is fiber! Run fiber between the homes or run a pair of fiber converters on one end of the cable with a short fiber run. This will electrically separate the two homes.

Wireless Networking with 802.11b

In 2000, 802.11b became the standard wireless networking technology for both business and home. The WiFI organization was created to ensure interoperability between 802.11b products. With a realistic throughput of 2.5-4Mbps, it is fast enough for most network applications and tolerable for file transfers.

Wireless to Ethernet Bridges can be used to connect Ecient products to your Ethernet network when you can't run ethernet cables to your equipment.

Access Points

An 802.11b wireless network adapter can operate in two modes, Ad-Hoc and Infrastructure. In infrastructure mode, all your traffic passes through a wireless 'access point'. In Ad-hoc mode your computers talk directly to each other and do not need an access point at all.

Access point varieties

Access points come in three varieties -- bridge, NAT router and NAT router+bridge. A bridge connects a wireless network to a wired network transparently.

Communication is possible between both networks in both directions. A NAT router type routes traffic from your wireless network to an Ethernet wired network, but it will not route traffic back. This type can be used to share an Internet connection. Lastly, there are hybrid NAT router + Bridge devices that bridge your wired and wireless networks, then route them both to the internet using a single IP address. This is good for sharing an Internet connection when you have both wired and wireless computers in your home. These are often called Cable or DSL routers with wireless access points built-in.

Security

Any network adapter coming within range of another 802.11b network adapter or access point can instantly connect and join the network unless WEP – Wireless Encryption Protocol – is enabled. WEP is secure enough for most homes and business, but don't think it can't be hacked. There are several flaws in WEP making it unusable for high security applications. At this point, it takes some serious hacking abilities to bust into a WEP enabled network so home users should not worry.

WEP and Speed

WEP 'WILL' slow down your wireless network. Expect a 20-50% reduction in speed depending on the products you are using. The speed issue is often the result of an access point without enough processing power.

Encryption

Encryption comes in 64bit and 128bit key varieties. All your nodes must be at the same encryption level with the same key to operate. 40bit and 64bit encryption is the same. it's just a matter of how the manufacturer decided to label the product. Often 128bit cards can often be placed in 40/64bit mode.

Form Factors

802.11b adapters come in two major form factors. PC Cards for laptops and USB for desktops. In addition, there are PCI adapters that let you plug a PC Card into a PCI Slot.

Speed

A full strength 802.11b signal will get you about 3.5-4.5 Mbps without WEP enabled. With WEP enabled, expect 2.5-3.5 Mbps. As you put walls and distance between your wireless adapter and your access point, your speed will drop. Don't expect to put more than a few walls between you and your access point.

Technical Specs

802.11b is a half duplex protocol – it can send OR receive, but not both at the same time. In addition it uses the same 2.4 GHz range as many cordless phones so plenty of opportunity exists for interference. Use 900Mhz cordless phones if using 802.11b in the same area.

Distance

Distance will very widely depending on which wireless networking device you are using, what kind of antenna it uses, the construction materials in your home, electrical interference, and capabilities of the wireless receiver. Some people have used directional antennas to get some serious range out of their 802.11b products – miles!

Faster Wireless 802.11g

The 802.11g spec was drafted in Nov of 2001. 802.11g operates on the same frequency as 802.11b and is backwards compatible. The planned common implementation of consumer 802.11g devices operate at a maximum of 22Mbps but can communicate at up to 54Mbps. 802.11g is sometimes called 'Turbo Mode' on some 802.11b cards.

Like 802.11b, 802.11g is subject to the same interference and security issues. It operates at 2.4Ghz and may cause problems with 2.4Ghz cordless telephones.

When a 802.11g product communicates with an 11Mbps 802.11b product, it drops down to 11Mbps or less depending on signal strength. In other words, if you purchase an 802.11g product for use with an 802.11b access point, expect only 11Mbps.

Powerline Networking

Powerline networking has existed in a few forms in the past, the latest specification is called HomePlug and runs at 14Mbps. HomePlug uses your existing home electrical wiring to transfer data.

HomePlug does not interfere with your existing electrical equipment or home automation devices like X-10, CEBus, and LONworks. HomePlug also encrypts all data with 56bit DES encryption to ensure that your neighbors can not eavesdrop on your network traffic. Note: encryption is usually not enabled by default and must be 'turned on' using software provided by the devices manufacturer.

The HomePlug specification incorporates a technology called PowerPacket. This new technology is what makes HomePlug different from the old Powerline networks. PowerPacket eliminates noise from electrical appliances like hair driers and televisions plus it offers security.

Powerline network adapters come in PCI and USB versions but are fairly expensive right now - about $50 to $100 per computer. There are also Powerline to Ethernet bridges and Powerline broadband routers with ethernet bridges built-in, in the same price range.

ESCIENT

ESCIENT®

PRODUCTS FOR THE HUMAN INTERFACE.

INSTALLER CHECKLIST

Installation Checklist for Escient FireBall Products

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Escient FireBall Installation Checklist

The follow are recommendations for installing Escient FireBall music and movie management systems. Feel free to add your own information to this list depending on what other equipment will be installed with the FireBall systems.

Note: Escient FireBall products require a dialup or broadband Internet connection to operate fully. Please pay special attention to the Network Information section.

Customer Information

Name: _____

Address 1: _____

Address 2: _____

City: _____

State: _____

Zip Code: _____

Phone: _____

Email: _____

Dealer/Installer Information

Dealer: _____

Installer: _____

Address 1: _____

Address 2: _____

City: _____

State: _____

Zip Code: _____

Work Order: _____

Phone: _____

Email: _____

ISP Information

Service Provider: _____

Support Number: _____

Connection Type

☐ Dialup ☐ LAN ☐ ISDN
☐ Cable Modem ☐ DSL ☐ Other

Dialup Info

Access Numbers: _____ _____

User Name: _____

Password: _____

IP Info

Addressing: ☐ Dynamic (DHCP) ☐ Static

IP Address: _____

Gateway/Router: _____

Net Mask: _____

Domain Name Servers: _____ _____

Note: If installing more than 1 FireBall on a Static network, each will require its own IP Address.

FireBall 2 IP Address: _____

FireBall 3 IP Address: _____

FireBall 4 IP Address: _____

FireBall 5 IP Address: _____

Disc Changers

Up to 3 of the same brand are supported per FireBall.

#1: Brand:_____Model:_____ Serial Number:_____

#2: Brand:_____Model:_____ Serial Number:_____

#3: Brand:_____Model:_____ Serial Number:_____

Audio Connections

☐ Analog Stereo ☐ Optical Digital ☐ Coax Digital ☐ 5.1 Analog

Video Connections

☐ Composite ☐ S-Video ☐ Component

Optional Accessory Checklist

☐ Escient Touch Panels _____
☐ Extra IR remotes _____
☐ Extra IR keyboards _____
☐ S-Link Cables _____
☐ RS-232 Cables _____
☐ Ethernet Hub _____
☐ Extra Ethernet Cables _____